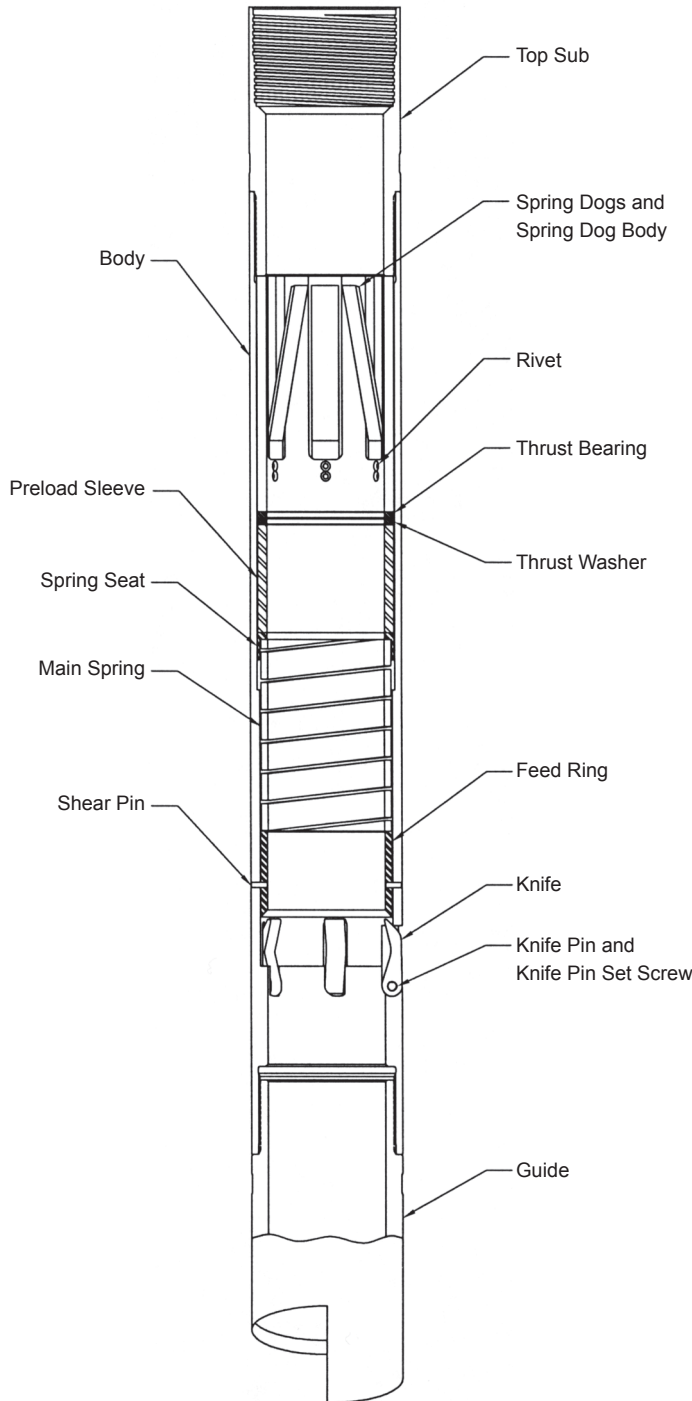


Standard External Cutters



STANDARD EXTERNAL CUTTERS

Overview

The automatic spring-fed knives feature of this tool prevents excessive strain from being applied from the rig floor that could cause the knives to burn or break before the cut is completed.

Construction

The tool consists of a top sub, body, guide, knives, spring dog assembly, thrust washer, thrust bearing, preload sleeve, feed ring, main spring, and shear pins.

Spring Dog Assembly

The Spring Dog Assembly is standard equipment on all External Cutters. The Spring Dog Assembly catches square shouldered collars or couplings and retains the cut off section after the cut is made. A variety of pipe sizes can be caught by each assembly for each different size of cutter.

Ratchet Pawl Assembly

The Ratchet Pawl Assembly is designed to catch tapered upset integral tool joints. They are also capable of catching square shouldered collars or couplings. Ratchet Pawl Assemblies fit only one particular size of pipe and will be provided upon request.

Special Note:

Single Pawl Spacer is required when using a Ratchet Pawl Assembly.

Slip Assembly

This optional assembly is designed to cut and retain pipe with external tool joints. The slips will grip the pipe at any point and retain the cut-off section after making the cut. Slip assemblies will be provided upon request.

Operation

Run the cutter to the desired depth. Apply enough pull load on the work string to pull the spring dog assembly (or ratchet pawl assembly if used) up against a coupling or upset of a tool joint. This will apply load to the thrust bearings, preload ring, and main spring that will shear the pins on the feed ring. This allows the main spring to apply sufficient load on the knives so the cut can be made.

Standard External Cutters

STANDARD EXTERNAL CUTTERS

TUBING/CASING SIZE TO CUT	1.050 to 1.315 Tbg	1.315 to 2-3/8 Tbg	1.660 to 2-3/8 Tbg	1.900 to 2-7/8 Tbg	2-1/16 to 3-1/2 Tbg	2-3/8 to 3-1/2 Tbg	2 3/8 to 4 Tbg
MAX SIZE WILL PASS OVER	1.552	3-1/16	3-1/8	3-3/4	4-1/4	4-1/2	4-3/4
INSIDE DIAMETER (CUTTER)	1-5/8	3-1/8	3-1/4	3-7/8	4-3/8	4-5/8	4-7/8
OUTSIDE DIAMETER (CUTTER)	2-5/16	3-7/8	4-1/2	4-11/16	5-5/8	5-7/8	6-1/16
MINIMUM SIZE HOLE TO RUN IN	2-7/16	4-1/8	4-3/4	4-15/16	5-7/8	6-1/8	6-1/4
COMPLETE ASSEMBLY	410-231	410-388	410-450	410-468	410-563	410-588	410-606
w/SPRING DOG	Bowen No.						
	32848	47127	47167	47210	47309	47264	47360
TOP SUB							
	P1000	P1001	P1002	P1003	P1004	P1005	P1006
	Bowen No.						
	13626	47128	47168	47211	33574	47265	33648
BODY							
	P2000	P2001	P2002	P2003	P2004	P2005	P2006
	Bowen No.						
	13627	47129	47169	47212	47310	47266	47361
THRUST WASHER							
	P3000	P3001	P3002	P3003	P3004	P3005	P3006
	Bowen No.						
	13633	32904	47171	33083	36484	47268	33650
THRUST BEARING							
	P4000	P4001	P4002	P4003	P4004	P4005	P4006
	Bowen No.						
	32852	32905	47172	33084	33595	47269	33651
PRELOAD SLEEVE							
	P5000	P5001	P5002	P5003	P5004	P5005	P5006
	Bowen No.						
	32891	45844	47173	47214	33582	47270	47362
SPRING SEAT							
	P6000	P6001	P6002	P6003	P6004	P6005	P6006
	Bowen No.						
	80149	14209	47174	47215	33583	49254	47363
MAIN SPRING							
	P7000	P7001	P7002	P7003	P7004	P7005	P7006
	Bowen No.						
	13634	14217	33020	33085	9994	39164	33652
FEED RING							
	P8000	P8001	P8002	P8003	P8004	P8005	P8006
	Bowen No.						
	13635	32907	47175	33086	33579	47577	33653
SHEAR PIN							
	P9000	P9000	P9002	P9000	P9004	P9004	P9006
	Bowen No.						
	14205	14205	47578	14205	33580	33580	33654
	No. Req'd						
	2	2	2	2	2	2	2
KNIFE							
	P10000	P10001	P10002	P10003	P10004	P10004	P10006
	Bowen No.						
	13637	32909	33023	33088	34553	34553	33655
	No. Req'd						
	5	5	5	5	5	5	5
KNIFE PIN							
	P11000	P11001	P11002	P11003	P11004	P11004	P11006
	Bowen No.						
	37015	32910	33024	33089	34554	34554	33656
	No. Req'd						
	5	5	5	5	5	5	5
KNIFE PIN SET SCREW							
	...	P12001	P12002	P12003	P12004	P12004	P12006
	Bowen No.						
	...	32911	23687	23664	23703	23703	23685
	No. Req'd						
	...	5	5	5	5	5	5
GUIDE							
	P13000	P13001	P13002	P13003	P13004	P13005	P13006
	Bowen No.						
	13628	14203	47176	33093	33584	39169	33660

Special Notes:

- (1) Assembly includes one Spring Dog assembly, which differs from Ratchet Pawl or Slip assemblies; see chart above.
- (2) Connections other than API available upon request.
- (3) Single Pawl Spacer is required when using Ratchet Pawl Assembly.

When ordering, please specify:

- (1) Name and number of assembly or part
- (2) Size and type of top connection
- (3) Any desired options by name and number
- (4) Any desired spares by name and number

Recommended Spare Parts:

- (1) 2 sets Knife Pins
- (2) 1 Feed Ring
- (3) 24 Shear Pins
- (4) 6 sets of Knives
- (5) 2 Spring Dog, Ratchet Pawl, or Slip Assemblies
- (6) 1 set Knife Pin Screws

Standard External Cutters

STANDARD EXTERNAL CUTTERS								
TUBING/CASING SIZE TO CUT		1.050 to 1.315 Tbg	1.315 to 2-3/8 Tbg	1.660 to 2-3/8 Tbg	1.900 to 2-7/8 Tbg	2-1/16 to 3-1/2 Tbg	2-3/8 to 3-1/2 Tbg	2 3/8 to 4 Tbg
MAXIMUM SIZE WILL PASS OVER		1.552	3-1/16	3-1/8	3-3/4	4-1/4	4-1/2	4-3/4
INSIDE DIAMETER (CUTTER)		1-5/8	3-1/8	3-1/4	3-7/8	4-3/8	4-5/8	4-7/8
OUTSIDE DIAMETER (CUTTER)		2-5/16	3-7/8	4-1/2	4-11/16	5-5/8	5-7/8	6-1/16
MINIMUM SIZE HOLE TO RUN IN		2-7/16	4-1/8	4-3/4	4-15/16	5-7/8	6-1/8	6-1/4
COMPLETE ASSEMBLY	Logan Part No.	410-231	410-388	410-450	410-468	410-563	410-588	410-606
w/SPRING DOG	Bowen No.	32848	47127	47167	47210	47309	47264	47360

SPRING DOG ASSEMBLY

COMPLETE ASSEMBLY	Logan Part No.	11000-000	11000-001	11000-002	11000-003	11000-004	11000-005	11000-006
<i>Consists of:</i>	Bowen No.	13629	47131	47177	47216	47313	47271	47365
SPRING DOG BODY	Logan Part No.	P14000	P14001	P14002	P14003	P14004	P14005	P14006
	Bowen No.	13630	47132	47178	47217	47314	47272	47366
SPRING DOG	Logan Part No.	P15000	P15001	P15002	P15003	P15004	P15004	P15006
	Bowen No.	13631	32917	47179	33103	33644	33644	33663
	No. Req'd	6	6	6	6	6	6	6
RIVET	Logan Part No.	P16000	P16001	P16002	P16003	P16004	P16002	P16004
	Bowen No.	13632	45626	47180	45842	44803	47180	44803
	No. Req'd	12	12	12	12	12	12	12

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

Special Notes:

- (1) Assembly includes one Spring Dog assembly, which differs from Ratchet Pawl or Slip assemblies; see chart above.
- (2) Connections other than API available upon request.
- (3) Single Pawl Spacer is required when using Ratchet Pawl Assembly.

When ordering, please specify:

- (1) Name and number of assembly or part
- (2) Size and type of top connection
- (3) Any desired options by name and number
- (4) Any desired spares by name and number

Recommended Spare Parts:

- (1) 2 sets Knife Pins
- (2) 1 Feed Ring
- (3) 24 Shear Pins
- (4) 6 sets of Knives
- (5) 2 Spring Dog, Ratchet Pawl, or Slip Assemblies
- (6) 1 set Knife Pin Screws

STANDARD EXTERNAL CUTTERS

TUBING/CASING SIZE TO CUT	1.050 to 1.315 Tbg	1.315 to 2-3/8 Tbg	1.660 to 2-3/8 Tbg	1.900 to 2-7/8 Tbg	2-1/16 to 3-1/2 Tbg	2-3/8 to 3-1/2 Tbg	2 3/8 to 4 Tbg	
MAXIMUM SIZE WILL PASS OVER	1.552	3-1/16	3-1/8	3-3/4	4-1/4	4-1/2	4-3/4	
INSIDE DIAMETER (CUTTER)	1-5/8	3-1/8	3-1/4	3-7/8	4-3/8	4-5/8	4-7/8	
OUTSIDE DIAMETER (CUTTER)	2-5/16	3-7/8	4-1/2	4-11/16	5-5/8	5-7/8	6-1/16	
MINIMUM SIZE HOLE TO RUN IN	2-7/16	4-1/8	4-3/4	4-15/16	5-7/8	6-1/8	6-1/4	
COMPLETE ASSEMBLY	Logan Part No.	410-231	410-388	410-450	410-468	410-563	410-588	410-606
w/SPRING DOG	Bowen No.	32848	47127	47167	47210	47309	47264	47360

OPTIONAL RATCHET PAWL ASSEMBLY

COMPLETE ASSEMBLY	Logan Part No.	11000-009	11000-010	11000-011	11000-012	11000-013	11000-014	11000-015
<i>Consists of:</i>	Bowen No.	13666	47138	47181	47218	47315	47275	47367
PAWL BODY	Logan Part No.	P17000	P17001	P17002	P17003	P17004	P17005	P17006
	Bowen No.	13667	47139	47182	47219	47316	47276	47368
RATCHET PAWL	Logan Part No.	P18000	P18001	P18002	P18003	P18004	P18005	P18006
	Bowen No.	13668	32946	47183	47220	47317	47277	47369
	No. Req'd	6	6	6	6	6	6	6
PAWL SPRING	Logan Part No.	P19000	P19001	P19002	P19003	P19002	P19002	P19002
	Bowen No.	14213	15656	14829	18729	14829	14829	14829
	No. Req'd	6	6	6	6	6	6	6
PAWL PIN	Logan Part No.	P20000	P20001	P20002	P20001	P20004	P20005	P20002
	Bowen No.	37011	33128	37019	33128	37031	47253	37019
	No. Req'd	6	6	6	6	6	6	6
SINGLE PAWL SPACER	Logan Part No.	P27000	P27001	P27002	P27003	P27004	P27005	P27006
<i>(See Note 3)</i>	Bowen No.	32890	47141	47190	47227	47326	47286	47378

OPTIONAL SLIP ASSEMBLY

COMPLETE ASSEMBLY	Logan Part No.	...	11000-019	11000-020	11000-021	11000-022	11000-023	11000-024
<i>Consists of:</i>	Bowen No.	...	47133	47185	47221	47319	47279	47371
SLIP	Logan Part No.	...	P21001	P21002	P21003	P21004	P21005	P21006
	Bowen No.	...	47134	47186	47222	47320	47280	47372
SLIP BOWL	Logan Part No.	...	P22001	P22002	P22003	P22004	P22005	P22006
	Bowen No.	...	47135	47187	47223	47321	47281	47373
SLIP BOWL RETAINER	Logan Part No.	...	P23001	P23002	P23003	P23004	P23005	P23006
	Bowen No.	...	47136	47188	47224	47322	47282	47374
SLIP SPRING	Logan Part No.	...	P24001	P24002	P24003	P24004	P24005	P24006
	Bowen No.	...	47137	47189	47225	47323	47283	47375
SLIP BOWL SHEAR PIN	Logan Part No.	...	P25001	P25001	P25001	P25004	P25004	P25004
	Bowen No.	...	47208	47208	47208	47324	47324	47324
	No. Req'd	...	4	4	4	4	4	4
SLIP ADAPTER	Logan Part No.	...	P26001	P26002	P26003	P26004	P26005	P26006
	Bowen No.	...	47130	47170	47213	47311	47267	47364

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Standard External Cutters

STANDARD EXTERNAL CUTTERS			
TUBING/CASING SIZE TO CUT	3-1/2, 4, 4-1/2 & 5 DP	4 to 5-3/4 Csg	
MAXIMUM SIZE WILL PASS OVER	6-1/4	6-1/2	
INSIDE DIAMETER (CUTTER)	6-3/8	6-5/8	
OUTSIDE DIAMETER (CUTTER)	7-5/8	8-1/8	
MINIMUM SIZE HOLE TO RUN IN	8-1/4	8-5/8	
COMPLETE ASSEMBLY	Logan Part No. 410-763	410-813	
w/SPRING DOG	Bowen No. 47422	47541	
<i>Consists of:</i>			
TOP SUB	Logan Part No. P1007	P1008	
	Bowen No. 33885	33959	
BODY	Logan Part No. P2007	P2008	
	Bowen No. 47423	47542	
THRUST WASHER	Logan Part No. P3007	P3008	
	Bowen No. 33887	33961	
THRUST BEARING	Logan Part No. P4007	P4008	
	Bowen No. 33888	33962	
PRELOAD SLEEVE	Logan Part No. P5007	P5008	
	Bowen No. 47424	47543	
SPRING SEAT	Logan Part No. P6007	P6008	
	Bowen No. 49255	49258	
MAIN SPRING	Logan Part No. P7007	P7008	
	Bowen No. 33889	33963	
FEED RING	Logan Part No. P8007	P8008	
	Bowen No. 33890	33964	
SHEAR PIN	Logan Part No. P9007	P9008	
	Bowen No. 33891	33965	
	No. Req'd 2	2	
KNIFE	Logan Part No. P10004	P10008	
	Bowen No. 34553	44802	
	No. Req'd 5	5	
KNIFE PIN	Logan Part No. P11004	P11008	
	Bowen No. 34554	33966	
	No. Req'd 5	5	
KNIFE PIN SET SCREW	Logan Part No. P12004	P12008	
	Bowen No. 23703	23705	
	No. Req'd 5	5	
GUIDE	Logan Part No. P13007	P13008	
	Bowen No. 33897	33969	

TUBING/CASING SIZE TO CUT	3-1/2, 4, 4-1/2 & 5 DP	4 to 5-3/4 Csg
MAXIMUM SIZE WILL PASS OVER	6-1/4	6-1/2
INSIDE DIAMETER (CUTTER)	6-3/8	6-5/8
OUTSIDE DIAMETER (CUTTER)	7-5/8	8-1/8
MINIMUM SIZE HOLE TO RUN IN	8-1/4	8-5/8

SPRING DOG ASSEMBLY

COMPLETE ASSEMBLY	Logan Part No. 11000-007	11000-008
<i>Consists of:</i>	Bowen No. 33949	47545
SPRING DOG BODY	Logan Part No. P14007	P14008
	Bowen No. 33950	47546
SPRING DOG	Logan Part No. P15007	P15007
	Bowen No. 50192	50192
	No. Req'd 6	6
RIVET	Logan Part No. P16004	P16008
	Bowen No. 44803	50191
	No. Req'd 12	12

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Special Notes:

- (1) Assembly includes one Spring Dog Assembly which differs from Ratchet Pawl or Slip Assemblies. See table on next page.
- (2) Connections other than API available upon request.
- (3) Single Pawl Spacer is required when using Ratchet Pawl Assembly. It is not included in the Complete Assembly.

When ordering, please specify:

- (1) Name and number of assembly or part
- (2) Size and type of top connection
- (3) Any desired options by name and number
- (4) Any desired spares by name and number

Recommended Spare Parts:

- (1) 2 sets Knife Pins
- (2) 1 Feed Ring
- (3) 24 Shear Pins
- (4) 6 sets of Knives
- (5) 2 Spring Dog, Ratchet Pawl, or Slip Assemblies
- (6) 1 set Knife Pin Screws

STANDARD EXTERNAL CUTTERS

TUBING/CASING SIZE TO CUT	3-1/2, 4, 4-1/2 & 5 DP	4 to 5-3/4 Csg
MAXIMUM SIZE WILL PASS OVER	6-1/4	6-1/2
INSIDE DIAMETER (CUTTER)	6-3/8	6-5/8
OUTSIDE DIAMETER (CUTTER)	7-5/8	8-1/8
MINIMUM SIZE HOLE TO RUN IN	8-1/4	8-5/8

TUBING/CASING SIZE TO CUT	3-1/2, 4, 4-1/2 & 5 DP	4 to 5-3/4 Csg
MAXIMUM SIZE WILL PASS OVER	6-1/4	6-1/2
INSIDE DIAMETER (CUTTER)	6-3/8	6-5/8
OUTSIDE DIAMETER (CUTTER)	7-5/8	8-1/8
MINIMUM SIZE HOLE TO RUN IN	8-1/4	8-5/8

OPTIONAL RATCHET PAWL ASSEMBLY

COMPLETE ASSEMBLY	Logan Part No. 11000-016	11000-017
<i>Consists of:</i>	Bowen No. 47426	47547
PAWL BODY	Logan Part No. P17007	P17008
	Bowen No. 47427	47548
RATCHET PAWL	Logan Part No. P18007	P18008
	Bowen No. 47428	47549
	No. Req'd 6	6
PAWL SPRING	Logan Part No. P19002	P19008
	Bowen No. 14829	47443
	No. Req'd 6	6
PAWL PIN	Logan Part No. P20004	P20008
	Bowen No. 37031	47550
	No. Req'd 6	6
SINGLE PAWL SPACER	Logan Part No. P27007	P27008
<i>(See Note 3)</i>	Bowen No. 47437	47557

OPTIONAL SLIP ASSEMBLY

COMPLETE ASSEMBLY	Logan Part No. 11000-025	11000-026
<i>Consists of:</i>	Bowen No. 47430	47551
SLIP	Logan Part No. P21007	P21008
	Bowen No. 47431	47552
SLIP BOWL	Logan Part No. P22007	P22008
	Bowen No. 47432	47553
SLIP BOWL RETAINER	Logan Part No. P23007	P23008
	Bowen No. 47433	47554
SLIP SPRING	Logan Part No. P24007	P24008
	Bowen No. 47434	47556
SLIP BOWL SHEAR PIN	Logan Part No. P25007	P25008
	Bowen No. 47435	47555
	No. Req'd 4	4
SLIP ADAPTER	Logan Part No. P26007	P26008
	Bowen No. 47425	47544

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- (2) Connections other than API available upon request.
- (3) Single Pawl Spacer is required when using Ratchet Pawl Assembly. It is not included in the Complete Assembly.

When ordering, please specify:

- (1) Name and number of assembly or part
- (2) Size and type of top connection
- (3) Any desired options by name and number
- (4) Any desired spares by name and number

Recommended Spare Parts:

- (1) 2 sets Knife Pins
- (2) 1 Feed Ring
- (3) 24 Shear Pins
- (4) 6 sets of Knives
- (5) 2 Spring Dog, Ratchet Pawl, or Slip Assemblies
- (6) 1 set Knife Pin Screws