



Z Type Hydraulic Jars

Z TYPE HYDRAULIC JARS

Overview

The Z Type Hydraulic Jar is used for light drilling, fishing, coring, reaming, testing, side tracking, and washover operations. This straight-pull jar combines the principles of mechanics and hydraulics in a simple to assemble, easy to operate design. The jar has a closed hydraulic system that contains the hydraulic fluid within the jar and well fluids cannot enter the tool. The internal working parts are constantly lubricated by the hydraulic fluid within the tool resulting in long wear life of the parts.

Construction

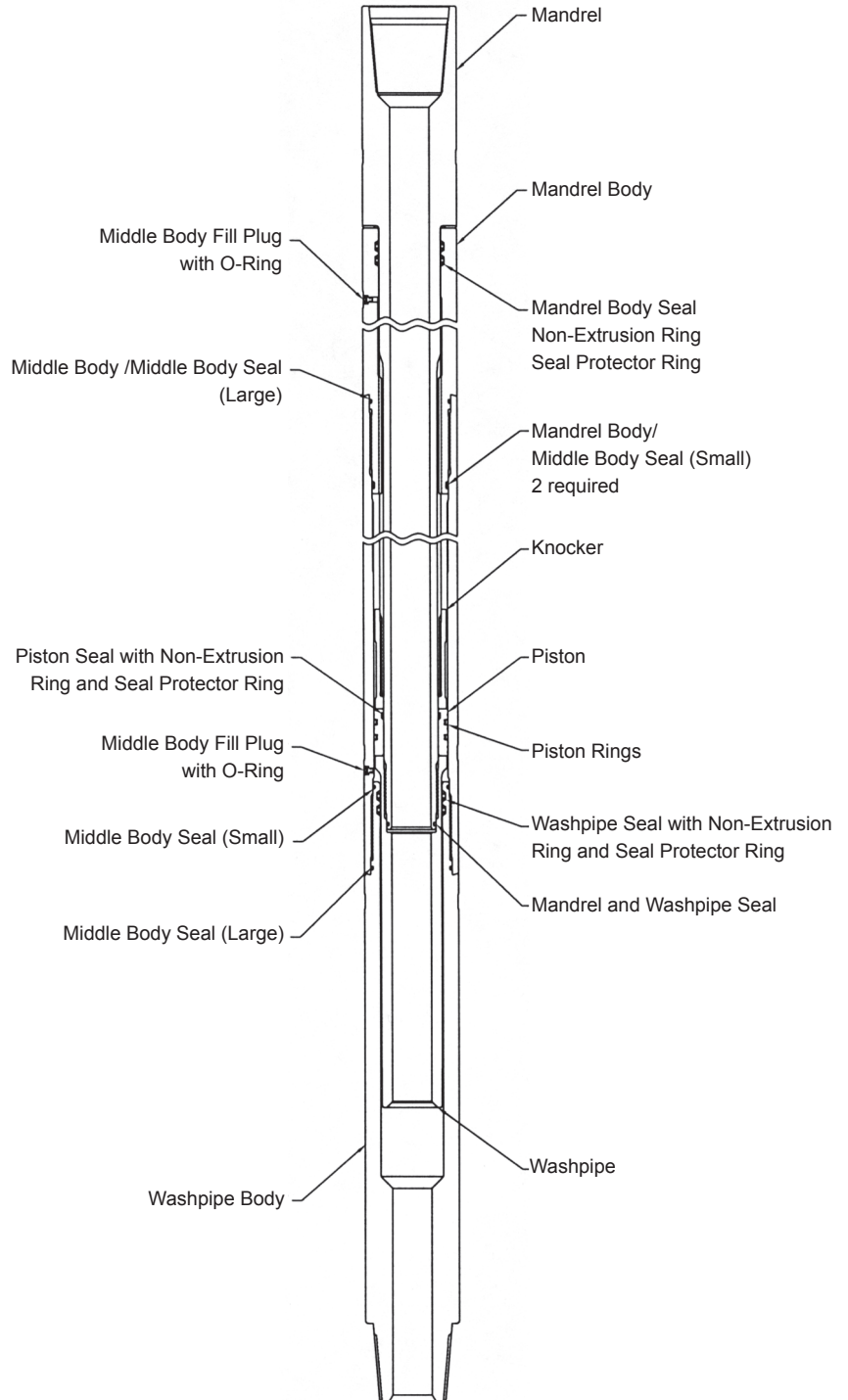
The Z Type Hydraulic Jar consists of a mandrel/piston assembly that slides within a cylinder assembly. The mandrel/piston assembly is composed of a mandrel, piston assembly (a piston, two piston rings, an O-ring seal, a non-extrusion ring, and a seal protector ring), washpipe, knocker, and seal ring assemblies. The cylinder assembly consists of a mandrel body, middle body, washpipe body, fill plugs, and seal assemblies.

Operation

The Z Type Hydraulic Jar is easy to use. Only straight pull is required to operate the jar. Each blow can be positively controlled by the operator from a very light blow to forceful impact. Successive blows can be struck as often as the operator can raise and slack off the running string. Full circulation through the tool can be maintained for effective flushing. Full torque may be used in either direction and at all times during operation.

When ordering, please specify:

- (1) Name and number of assembly or part
- (2) Connections, if other than standard
- (3) Outside diameter, if other than standard





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TOOL JOINT CONNECTION	7/8	1-13/16	1-1/4	2-3/8 PH6	2-3/8 EUE	2-3/8	2-7/8
	Sucker Rod	Wilson FJ	API Reg	5.9# Hyd Bx		API Reg	API Reg
OUTSIDE DIAMETER (INCHES)	1-5/8	1-13/16	2-1/4	2-29/32	3-1/16	3-1/8	3-3/4
INSIDE DIAMETER (INCHES)	1/4	5/16	3/8	1	1-1/2	1	1-1/4
TYPE JAR	Sub	Special	Integral Mandrel	Sub	Sub	Integral Mandrel	Integral Mandrel
COMPLETE ASSEMBLY	605-000	605-001	605-002	605-003	605-004	605-005	605-006
Bowen No.	70822	74723	54020	68010	55670	52504	52506
TOP SUB	AG3000	AG3001	...	AG3003	AG3004	...	...
Bowen No.	70823	21156	...	68015	55889	...	...
MANDREL	AG4000	AG4001	AG4002	AG4003	AG4004	AG4005	AG4006
Bowen No.	70825	21155	18780	68014	55888	38056	38041
PISTON ASSEMBLY <i>(Ring Type Standard)</i>	26000-018	26000-019	26000-020	26000-021	26000-022	26000-023	26000-024
Bowen No.	70853	74725	59585	68019	56368	61282	68128
MANDREL BODY	AG5000	AG5001	AG5002	AG5003	AG5004	AG5005	AG5006
Bowen No.	70824	21153	56571	68013	55887	52764	52770
MIDDLE BODY	AG6000	AG6001	AG6002	AG6003	AG6004	AG6005	AG6006
Bowen No.	70826	74724	18777	68012	55886	42737	38044
WASHPIPE BODY	AG7000	AG7001	AG7002	AG7003	AG7004	AG7005	AG7006
Bowen No.	70829	21151	18776	68011	55885	38064	38045
KNOCKER	...	...	AG8002	...	...	AG8005	AG8006
Bowen No.	...	...	18781	...	...	38060	38049
WASHPIPE	AG9000	AG9001	AG9002	AG9003	AG9004	AG9005	AG9006
Bowen No.	70828	21154	18779	68016	55890	42738	38046
MANDREL BODY	AG10000	AG10000	AG10002	AG10000	AG10000	AG10002	AG10002
FILL PLUG	Bowen No.	617	617	329	617	617	329
MIDDLE BODY	...	...	AG10000	AG10004	AG10004	AG10000	AG10000
FILL PLUG	Bowen No.	...	617	10641	10641	617	617
PACKING SET	26000-036	26000-037	26000-038	26000-039	26000-040	26000-041	26000-042
Bowen No.	70961	74802	18793	68017	55924	44622	38048
JAR LUBE	49842-A	49842-B	49842-D				
Bowen No.	49842-A	49842-B	49842-D				
	1 Gallon	5 Gallons	55 Gallons				

Special Notes:

- (1) Packing Sets include all seals necessary to dress the tool. Non-Extrusion Rings and Seal Protector Rings are not included, and must be ordered separately.
- (2) Service Kit does not include Seal Setting Tools, which must be ordered separately.

When ordering, please specify:

- (1) Name and number of assembly or part
- (2) Connections, if other than standard
- (3) Outside diameter, if other than standard

Recommended Spares:

- (1) 1 Service Kit
- (2) 1 Washpipe
- (3) 2 Piston Assemblies
- (4) 16 Non-Extrusion Rings
- (5) 16 Seal Protector Rings
- (6) 4 Mandrel Body Fill Plugs
- (7) 4 Middle Body Fill Plugs
- (8) 8 Packing Sets
- (9) 1 Mandrel Body Setting Tool
- (10) 1 Piston Setting Tool



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TOOL JOINT CONNECTION	7/8	1-13/16	1-1/4	2-3/8 PH6	2-3/8 EUE	2-3/8	2-7/8	
	Sucker Rod	Wilson FJ	API Reg	5.9# Hyd Bx		API Reg	API Reg	
OUTSIDE DIAMETER (INCHES)	1-5/8	1-13/16	2-1/4	2-29/32	3-1/16	3-1/8	3-3/4	
INSIDE DIAMETER (INCHES)	1/4	5/16	3/8	1	1-1/2	1	1-1/4	
TYPE JAR	Sub	Special	Integral Mandrel	Sub	Sub	Integral Mandrel	Integral Mandrel	
COMPLETE ASSEMBLY	<input type="checkbox"/>	605-000	605-001 <input type="checkbox"/>	605-002 <input type="checkbox"/>	605-003 <input type="checkbox"/>	605-004 <input type="checkbox"/>	605-005 <input type="checkbox"/>	605-006 <input type="checkbox"/>
	Bowen No.	70822	74723	54020	68010	55670	52504	52506
MANDREL BODY	<input type="checkbox"/>	568-005	568-005 <input type="checkbox"/>	568-006 <input type="checkbox"/>	568-005 <input type="checkbox"/>	568-006 <input type="checkbox"/>	568-006 <input type="checkbox"/>	568-006 <input type="checkbox"/>
FILL PLUG SEAL	Bowen No.	568005	568005	568006	568005	568006	568006	568006
MIDDLE BODY			...	568-005 <input type="checkbox"/>	568-005 <input type="checkbox"/>	568-005 <input type="checkbox"/>
FILL PLUG SEAL	Bowen No.	...	...	568005	...	...	568005	568005
PISTON SEAL			...	568-214 <input type="checkbox"/>	568-223 <input type="checkbox"/>	568-226 <input type="checkbox"/>
	Bowen No.	...	...	568214	...	...	568223	568226
MIDDLE BODY / MANDREL BODY SEAL	Bowen No.	...	...	...	...	...	...	...
WASHPIPE / MIDDLE BODY SEAL	Bowen No.	...	...	...	...	...	...	...
BACK-UP RINGS	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
MANDREL SEAL	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
MANDREL BODY SEAL	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
JAR LUBE	<input type="checkbox"/>	49842-A	49842-B	49842-D				
	Bowen No.	49842-A	49842-B	49842-D				
		1 Gallon	5 Gallons	55 Gallons				

Special Notes:

- (1) Packing Sets include all seals necessary to dress the tool. Non-Extrusion Rings and Seal Protector Rings are not included, and must be ordered separately.
- (2) Service Kit does not include Seal Setting Tools, which must be ordered separately.

When ordering, please specify:

- (1) Name and number of assembly or part
- (2) Connections, if other than standard
- (3) Outside diameter, if other than standard

Recommended Spares:

- (1) 1 Service Kit
- (2) 1 Washpipe
- (3) 2 Piston Assemblies
- (4) 16 Non-Extrusion Rings
- (5) 16 Seal Protector Rings
- (6) 4 Mandrel Body Fill Plugs
- (7) 4 Middle Body Fill Plugs
- (8) 8 Packing Sets
- (9) 1 Mandrel Body Setting Tool
- (10) 1 Piston Setting Tool

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TOOL JOINT CONNECTION		7/8 Sucker Rod	1-13/16 Wilson FJ	1-1/4 API Reg	2-3/8 PH6 5.9# Hyd Bx	2-3/8 EUE	2-3/8 API Reg	2-7/8 API Reg
OUTSIDE DIAMETER (INCHES)		1-5/8	1-13/16	2-1/4	2-29/32	3-1/16	3-1/8	3-3/4
INSIDE DIAMETER (INCHES)		1/4	5/16	3/8	1	1-1/2	1	1-1/4
TYPE JAR		Sub	Special	Integral Mandrel	Sub	Sub	Integral Mandrel	Integral Mandrel
COMPLETE ASSEMBLY	Logan Part No.	605-000	605-001	605-002	605-003	605-004	605-005	605-006
	Bowen No.	70822	74723	54020	68010	55670	52504	52506
MANDREL BODY	Logan Part No.	568-005	568-005	568-006	568-005	568-006	568-006	568-006
FILL PLUG SEAL	Bowen No.	568005	568005	568006	568005	568006	568006	568006
MIDDLE BODY	Logan Part No.	...	...	568-005	...	...	568-005	568-005
FILL PLUG SEAL	Bowen No.	...	...	568005	...	...	568005	568005
PISTON SEAL	Logan Part No.	...	...	568-214	...	...	568-223	568-226
	Bowen No.	...	...	568214	...	...	568223	568226
MIDDLE BODY / MANDREL BODY SEAL	Logan Part No.	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...
WASHPIPE / MIDDLE BODY SEAL	Logan Part No.	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...
BACK-UP RINGS	Logan Part No.	8-024	...	...	...	...	...	...
	Bowen No.	8-024	...	...	...	...	...	...
MANDREL SEAL	Logan Part No.	568-015	...	...	...	...	...	...
	Bowen No.	568015	...	...	...	...	...	...
MANDREL BODY SEAL	Logan Part No.	568-024	...	...	...	...	...	...
	Bowen No.	568024	...	...	...	...	...	...
JAR LUBE	Logan Part No.	49842-A	49842-B	49842-D				
	Bowen No.	49842-A	49842-B	49842-D				
		1 Gallon	5 Gallons	55 Gallons				

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

Special Notes:

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- (2) Service Kit does not include Seal Setting Tools, which must be ordered separately.

When ordering, please specify:

- (1) Name and number of assembly or part
- (2) Connections, if other than standard
- (3) Outside diameter, if other than standard

Recommended Spares:

- (1) 1 Service Kit
- (2) 1 Washpipe
- (3) 2 Piston Assemblies
- (4) 16 Non-Extrusion Rings
- (5) 16 Seal Protector Rings
- (6) 4 Mandrel Body Fill Plugs
- (7) 4 Middle Body Fill Plugs
- (8) 8 Packing Sets
- (9) 1 Mandrel Body Setting Tool
- (10) 1 Piston Setting Tool

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TOOL JOINT CONNECTION		2-3/8 API IF	2-3/8 EUE	2-7/8 API IF	2-7/8 EUE	3-1/2 API FH	3-1/2 API IF	3-1/2 API IF
OUTSIDE DIAMETER (INCHES)		3-3/4	3-3/4	4-1/4	4-1/2	4-3/4	4-3/4	4-3/4
INSIDE DIAMETER (INCHES)		1-1/2	1-7/8	1-15/16	2-3/8	1-1/2	2	2-1/4
TYPE JAR		Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel
COMPLETE ASSEMBLY	Logan Part No.	605-007	605-008	605-009	605-010	605-011	605-012	605-018
	Bowen No.	52528	52497	52502	52653	52530	52500	...
TOP SUB	Logan Part No.	AG3007	AG3008	...	...	...	...	...
	Bowen No.	37412	20156	...	...	...	...	...
MANDREL	Logan Part No.	AG4007	AG4008	AG4009	AG4010	AG4011	AG4012	AG40125
	Bowen No.	37411	20155	44484	35850	25965	38115	38115
PISTON ASSEMBLY <i>(Ring Type Standard)</i>	Logan Part No.	26000-025	26000-026	26000-027	26000-028	26000-029	26000-030	26000-030
	Bowen No.	61288	61285	68420	68421	55285	55193	55193
MANDREL BODY	Logan Part No.	AG5007	AG5008	AG5009	AG5010	AG5011	AG5012	AG5012
	Bowen No.	52771	52772	52780	52815	52749	52833	52833
MIDDLE BODY	Logan Part No.	AG6007	AG6007	AG6009	AG6010	AG6011	AG6012	AG6012
	Bowen No.	20152	20152	41840	35853	25962	38112	38112
WASHPIPE BODY	Logan Part No.	AG7007	AG7008	AG7009	AG7010	AG7011	AG7012	AG70125
	Bowen No.	37407	20151	44487	35854	25961	38111	38111
KNOCKER	Logan Part No.	...	...	AG8009	AG8010	AG8011	AG8012	AG8012
	Bowen No.	...	...	44490	35857	25966	38116	38116
WASHPIPE	Logan Part No.	AG9007	AG9008	AG9009	AG9010	AG9011	AG9012	AG90125
	Bowen No.	37410	20154	44488	35855	25964	38114	38114
MANDREL BODY	Logan Part No.	AG10002	AG10002	AG10002	AG10002	AG10002	AG10002	AG10002
FILL PLUG	Bowen No.	329	329	329	329	329	329	329
MIDDLE BODY	Logan Part No.	AG10000	AG10000	AG10000	AG10000	AG10002	AG10002	AG10002
FILL PLUG	Bowen No.	617	617	617	617	329	329	329
PACKING SET	Logan Part No.	26000-043	26000-044	26000-045	26000-046	26000-047	26000-048	26000-048
	Bowen No.	37415	20163	44491	35858	25892	38120	38120

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Recommended Spares:

- (1) 1 Service Kit
- (2) 1 Washpipe
- (3) 2 Piston Assemblies
- (4) 16 Non-Extrusion Rings
- (5) 16 Seal Protector Rings
- (6) 4 Mandrel Body Fill Plugs
- (7) 4 Middle Body Fill Plugs
- (8) 8 Packing Sets
- (9) 1 Mandrel Body Setting Tool
- (10) 1 Piston Setting Tool

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TOOL JOINT CONNECTION		2-3/8 API IF	2-3/8 EUE	2-7/8 API IF	2-7/8 EUE	3-1/2 API FH	3-1/2 API IF	3-1/2 API IF
OUTSIDE DIAMETER (INCHES)		3-3/4	3-3/4	4-1/4	4-1/2	4-3/4	4-3/4	4-3/4
INSIDE DIAMETER (INCHES)		1-1/2	1-7/8	1-15/16	2-3/8	1-1/2	2	2-1/4
TYPE JAR		Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel
COMPLETE ASSEMBLY	Logan Part No.	605-007	605-008	605-009	605-010	605-011	605-012	605-018
	Bowen No.	52528	52497	52502	52653	52530	52500	...
MANDREL NON-EXTRUSION RING	Logan Part No.	L365-36	L365-36	L365-40	L365-42	L365-40	L365-41	L365-41
	Bowen No.	365-36	365-36	365-40	365-42	365-40	365-41	365-41
	No. Req'd	8	8	8	8	8	8	8
MANDREL SEAL PROTECTOR RING	Logan Part No.	L375-36	L375-36	L375-40	L375-42	L375-40	L375-41	L375-41
	Bowen No.	375-36	375-36	375-40	375-42	375-40	375-41	375-41
	No. Req'd	8	8	8	8	8	8	8
MANDREL BODY NON-EXTRUSION RING	Logan Part No.	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...
MANDREL BODY INSERT	Logan Part No.	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...
MANDREL BODY SEAL PROTECTOR RING	Logan Part No.	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...
RING TYPE PISTON ASSEMBLY	Logan Part No.	26000-025	26000-026	26000-027	26000-028	26000-029	26000-030	26000-030
	Bowen No.	61288	61285	68420	68421	55285	55193	55193
	<i>Consists of:</i>							
PISTON	Logan Part No.	AG15007	AG15008	AG15009	AG15010	AG15011	AG15012	AG15012
	Bowen No.	61289	61286	68413	68415	55286	55194	55194
WAVE SPRING	Logan Part No.	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...
	No. Req'd	...	...	...	...	...	...	...
PISTON RING	Logan Part No.	L61287	L61287	L68414	L68416	L25968	L25293	L25293
	Bowen No.	61287	61287	68414	68416	25968	25293	25293
	No. Req'd	4	4	3	3	2	2	2
SEAL	Logan Part No.	568-228	568-229	568-231	568-233	568-231	568-232	568-232
	Bowen No.	568228	568229	568231	568233	568231	568232	568232
NON-EXTRUSION RING	Logan Part No.	L370-6	L52495	L370-9	L370-11	L370-8.5	L370-10	L370-10
	Bowen No.	370-6	52495	370-9	370-11	370-8.5	370-10	370-10
SEAL PROTECTOR RING	Logan Part No.	L376-6	L52496	L376-9	L376-11	L376-8.5	L376-10	L376-10
	Bowen No.	376-6	52496	376-9	376-11	376-8.5	376-10	376-10

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Special Notes:

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- (2) Service Kit does not include Seal Setting Tools, which must be ordered separately.

When ordering, please specify:

- (1) Name and number of assembly or part
- (2) Connections, if other than standard
- (3) Outside diameter, if other than standard

Recommended Spares:

- (1) 1 Service Kit
- (2) 1 Washpipe
- (3) 2 Piston Assemblies
- (4) 16 Non-Extrusion Rings
- (5) 16 Seal Protector Rings
- (6) 4 Mandrel Body Fill Plugs
- (7) 4 Middle Body Fill Plugs
- (8) 8 Packing Sets
- (9) 1 Mandrel Body Setting Tool
- (10) 1 Piston Setting Tool

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TOOL JOINT CONNECTION		2-3/8 API IF	2-3/8 EUE	2-7/8 API IF	2-7/8 EUE	3-1/2 API FH	3-1/2 API IF	3-1/2 API IF
OUTSIDE DIAMETER (INCHES)		3-3/4	3-3/4	4-1/4	4-1/2	4-3/4	4-3/4	4-3/4
INSIDE DIAMETER (INCHES)		1-1/2	1-7/8	1-15/16	2-3/8	1-1/2	2	2-1/4
TYPE JAR		Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel
COMPLETE ASSEMBLY	Logan Part No.	605-007	605-008	605-009	605-010	605-011	605-012	605-018
	Bowen No.	52528	52497	52502	52653	52530	52500	...
CONE TYPE	Logan Part No.	...	...	...	...	...	...	...
PISTON ASSEMBLY	Bowen No.	...	...	...	...	...	...	...
<i>Consists of:</i>		...	...	...	...	...	...	...
CONE	Logan Part No.	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...
BY-PASS BODY	Logan Part No.	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...
SEAL BODY	Logan Part No.	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...
SEAL BODY SEAL	Logan Part No.	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...

OPTIONAL

MANDREL BODY	Logan Part No.	AG1000-36	AG1000-36	AG1000-40	AG1000-42	AG1000-40	AG1000-41	AG1000-41
SETTING TOOL	Bowen No.	22709-36	22709-36	22709-40	22709-42	22709-40	22709-41	22709-41
PISTON SETTING TOOL	Logan Part No.	AG1000-34	AG2000	AG1000-37	AG1000-39	AG1000-36.5	AG1000-38	AG1000-38
	Bowen No.	22709-34	54922	22709-37	22709-39	22709-36.5	22709-38	22709-38
SERVICE KIT	Logan Part No.	26000-055	26000-055	26000-055	26000-055	26000-055	26000-055	26000-055
	Bowen No.	55403	55403	55403	55403	55403	55403	55403
HI-TEMPERATURE	Logan Part No.	26000-081	...	26000-083	26000-084	26000-084
PACKING SET	Bowen No.	78330	...	80115	80005	80005

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- (1) Name and number of assembly or part
- (2) Connections, if other than standard
- (3) Outside diameter, if other than standard

Recommended Spares:

- (1) 1 Service Kit
- (2) 1 Washpipe
- (3) 2 Piston Assemblies
- (4) 16 Non-Extrusion Rings
- (5) 16 Seal Protector Rings
- (6) 4 Mandrel Body Fill Plugs
- (7) 4 Middle Body Fill Plugs
- (8) 8 Packing Sets
- (9) 1 Mandrel Body Setting Tool
- (10) 1 Piston Setting Tool

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TOOL JOINT CONNECTION		2-3/8 API IF	2-3/8 EUE	2-7/8 API IF	2-7/8 EUE	3-1/2 API FH	3-1/2 API IF	3-1/2 API IF
OUTSIDE DIAMETER (INCHES)		3-3/4	3-3/4	4-1/4	4-1/2	4-3/4	4-3/4	4-3/4
INSIDE DIAMETER (INCHES)		1-1/2	1-7/8	1-15/16	2-3/8	1-1/2	2	2-1/4
TYPE JAR		Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel
COMPLETE ASSEMBLY	Logan Part No.	605-007	605-008	605-009	605-010	605-011	605-012	605-018
	Bowen No.	52528	52497	52502	52653	52530	52500	...
PACKING SET	Logan Part No.	26000-043	26000-044	26000-045	26000-046	26000-047	26000-048	26000-048
<i>Consists of:</i>	Bowen No.	37415	20163	44491	35858	25892	38120	38120
MANDREL / WASHPIPE SEAL	Logan Part No.	568-333	568-333	568-337	568-339	568-337	568-338	568-338
	Bowen No.	568333	568333	568337	568339	568337	568338	568338
	No. Req'd	4	4	4	4	4	4	4
LARGE MIDDLE BODY SEAL	Logan Part No.	568-235	568-235	568-239	568-241	568-241	568-241	568-241
	Bowen No.	568235	568235	568239	568241	568241	568241	568241
	No. Req'd	2	2	2	2	2	2	2
SMALL MIDDLE BODY SEAL	Logan Part No.	568-233	568-233	568-237	568-239	568-239	568-239	568-239
	Bowen No.	568233	568233	568237	568239	568239	568239	568239
	No. Req'd	3	3	3	3	3	3	3
WASHPIPE SEAL	Logan Part No.	568-224	568-227	568-227	568-233	568-228	568-228	568-228
	Bowen No.	568224	568227	568227	568233	568228	568228	568228
MANDREL BODY FILL PLUG SEAL	Logan Part No.	568-006	568-006	568-006	568-006	568-006	568-006	568-006
	Bowen No.	568006	568006	568006	568006	568006	568006	568006
MIDDLE BODY FILL PLUG SEAL	Logan Part No.	568-005	568-005	568-005	568-005	568-006	568-006	568-006
	Bowen No.	568005	568005	568005	568005	568006	568006	568006
PISTON SEAL	Logan Part No.	568-228	568-229	568-231	568-233	568-231	568-232	568-232
	Bowen No.	568228	568229	568231	568233	568231	568232	568232
MIDDLE BODY / MANDREL BODY SEAL	Logan Part No.	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...
WASHPIPE / MIDDLE BODY SEAL	Logan Part No.	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...
BACK-UP RINGS	Logan Part No.	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...
MANDREL SEAL	Logan Part No.	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...
MANDREL BODY SEAL	Logan Part No.	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...

JAR LUBE	Logan Part No.	49842-A	49842-B	49842-D				
	Bowen No.	49842-A	49842-B	49842-D				
		1 Gallon	5 Gallons	55 Gallons				

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

Special Notes:

- (1) Packing Sets include all seals necessary to dress the tool. Non-Extrusion Rings and Seal Protector Rings are not included, and must be ordered separately.
- (2) Service Kit does not include Seal Setting Tools, which must be ordered separately.

When ordering, please specify:

- (1) Name and number of assembly or part
- (2) Connections, if other than standard
- (3) Outside diameter, if other than standard

Recommended Spares:

- (1) 1 Service Kit
- (2) 1 Washpipe
- (3) 2 Piston Assemblies
- (4) 16 Non-Extrusion Rings
- (5) 16 Seal Protector Rings
- (6) 4 Mandrel Body Fill Plugs
- (7) 4 Middle Body Fill Plugs
- (8) 8 Packing Sets
- (9) 1 Mandrel Body Setting Tool
- (10) 1 Piston Setting Tool

Z Type Hydraulic Jars

Z TYPE HYDRAULIC JARS

TOOL JOINT CONNECTION		4-1/2 API FH	4-1/2 API IF	5-1/2 API Reg	6-5/8 API Reg	7-5/8 API Reg	
OUTSIDE DIAMETER (INCHES)		6	6-1/4 & 6-1/2	6-3/4	7-3/4 & 8	9	
INSIDE DIAMETER (INCHES)		2	2-1/4	2-3/8	3-1/16	3-3/4	
TYPE JAR		Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	
COMPLETE ASSEMBLY	Logan Part No.	605-013	605-014	605-015	605-016	605-017	
	Bowen No.	52498	52544	52680	52711	68346	
TOP SUB	Logan Part No.	...	...	...	...	...
	Bowen No.	...	...	...	...	...
MANDREL	Logan Part No.	AG4013	AG4014	AG4015	AG4016	AG4017	
	Bowen No.	14715	12375	11131	15156	66352	
PISTON ASSEMBLY <i>(Ring Type Standard)</i>	Logan Part No.	26000-031	26000-032	26000-033	26000-034	26000-035	
	Bowen No.	55246	55212	55335	68924	66355	
MANDREL BODY	Logan Part No.	AG5013	AG5014	AG5015	AG5016	AG5017	
	Bowen No.	52834	52835	52836	53088	66354	
MIDDLE BODY	Logan Part No.	AG6013	AG6014	AG6015	AG6016	AG6017	
	Bowen No.	14712	12372	11133	15158	66347	
WASHPIPE BODY	Logan Part No.	AG7013	AG7014	AG7015	AG7016	AG7017	
	Bowen No.	14711	12371	701	15164	66350	
KNOCKER	Logan Part No.	AG8013	AG8014	AG8015	AG8016	AG8017	
	Bowen No.	14717	12377	11134	15159	66348	
WASHPIPE	Logan Part No.	AG9013	AG9014	AG9015	AG9016	AG9017	
	Bowen No.	14714	12374	704	15163	66349	
MANDREL BODY	Logan Part No.	AG10003	AG10003	AG10003	AG10003	AG10003	
FILL PLUG	Bowen No.	508	508	508	508	508	
MIDDLE BODY	Logan Part No.	AG10002	AG10002	AG10002	AG10002	AG10002	
FILL PLUG	Bowen No.	329	329	329	329	329	
PACKING SET	Logan Part No.	26000-049	26000-050	26000-051	26000-052	26000-053	
	Bowen No.	14720	12383	9738	20980	66359	
MANDREL	Logan Part No.	L453	L365-48	L365-50.75	L365-59	L365-65	
NON-EXTRUSION RING	Bowen No.	453	365-48	708	365-59	365-65	
	No. Req'd	8	8	8	8	8	
MANDREL SEAL	Logan Part No.	L449	L375-48	L375-50.75	L375-59	L375-65	
PROTECTOR RING	Bowen No.	449	375-48	709	375-59	375-65	
	No. Req'd	8	8	8	8	8	
MANDREL BODY	Logan Part No.	...	...	...	...	...
NON-EXTRUSION RING	Bowen No.	...	...	...	...	...

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

Special Notes:

- (1) Packing Sets include all seals necessary to dress the tool. Non-Extrusion Rings and Seal Protector Rings are not included, and must be ordered separately.
 (2) Service Kit does not include Seal Setting Tools, which must be ordered separately.

When ordering, please specify:

- (1) Name and number of assembly or part
- (2) Connections, if other than standard
- (3) Outside diameter, if other than standard

Recommended Spares:

- (1) 1 Service Kit
- (2) 1 Washpipe
- (3) 2 Piston Assemblies
- (4) 16 Non-Extrusion Rings
- (5) 16 Seal Protector Rings
- (6) 4 Mandrel Body Fill Plugs
- (7) 4 Middle Body Fill Plugs
- (8) 8 Packing Sets
- (9) 1 Mandrel Body Setting Tool
- (10) 1 Piston Setting Tool

Z Type Hydraulic Jars

Z TYPE HYDRAULIC JARS

TOOL JOINT CONNECTION		4-1/2 API FH	4-1/2 API IF	5-1/2 API Reg	6-5/8 API Reg	7-5/8 API Reg	
OUTSIDE DIAMETER (INCHES)		6	6-1/4 & 6-1/2	6-3/4	7-3/4 & 8	9	
INSIDE DIAMETER (INCHES)		2	2-1/4	2-3/8	3-1/16	3-3/4	
TYPE JAR		Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	
COMPLETE ASSEMBLY	Logan Part No.	605-013	605-014	605-015	605-016	605-017	
	Bowen No.	52498	52544	52680	52711	68346	
MANDREL BODY INSERT	Logan Part No.	...	...	...	...	...
	Bowen No.	...	...	...	...	...
MANDREL BODY SEAL PROTECTOR RING	Logan Part No.	...	...	...	...	...
	Bowen No.	...	...	...	...	...
RING TYPE PISTON ASSEMBLY	Logan Part No.	26000-031	26000-032	26000-033	26000-034	26000-035	
	Bowen No.	55246	55212	55335	68924	66355	
<i>Consists of:</i>							
PISTON	Logan Part No.	AG15013	AG15014	AG15015	AG15016	AG15017	
	Bowen No.	55247	55213	55339	68925	66357	
WAVE SPRING	Logan Part No.	...	...	...	...	...
	No. Req'd	...	...	...	...	...
PISTON RING	Logan Part No.	L1999	L12379	L719	L15162	L66356	
	Bowen No.	1999	12379	719	15162	66356	
	No. Req'd	1	2	2	4	5	
SEAL	Logan Part No.	568-236	568-237	568-239	568-426	568-430	
	Bowen No.	568236	568237	568239	568426	568430	
NON-EXTRUSION RING	Logan Part No.	L370-13.75	L370-15	L370-17	L365-53	L365-57	
	Bowen No.	370-13.75	370-15	370-17	365-53	365-57	
SEAL PROTECTOR RING	Logan Part No.	L376-13.75	L376-15	L376-17	L375-53	L375-57	
	Bowen No.	376-13.75	376-15	376-17	375-53	375-57	
CONE TYPE PISTON ASSEMBLY	Logan Part No.	...	...	...	...	...
	Bowen No.	...	...	...	...	...
<i>Consists of:</i>							
CONE	Logan Part No.	...	...	...	...	...
	Bowen No.	...	...	...	...	...
BY-PASS BODY	Logan Part No.	...	...	...	...	...
	Bowen No.	
SEAL BODY	Logan Part No.	
	Bowen No.	
SEAL BODY SEAL	Logan Part No.	
	Bowen No.	

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Special Notes:

- (1) Packing Sets include all seals necessary to dress the tool. Non-Extrusion Rings and Seal Protector Rings are not included, and must be ordered separately.
- (2) Service Kit does not include Seal Setting Tools, which must be ordered separately.

When ordering, please specify:

- (1) Name and number of assembly or part
- (2) Connections, if other than standard
- (3) Outside diameter, if other than standard

Recommended Spares:

- (1) 1 Service Kit
- (2) 1 Washpipe
- (3) 2 Piston Assemblies
- (4) 16 Non-Extrusion Rings
- (5) 16 Seal Protector Rings
- (6) 4 Mandrel Body Fill Plugs
- (7) 4 Middle Body Fill Plugs
- (8) 8 Packing Sets
- (9) 1 Mandrel Body Setting Tool
- (10) 1 Piston Setting Tool

Z Type Hydraulic Jars

Z TYPE HYDRAULIC JARS

TOOL JOINT CONNECTION		4-1/2 API FH	4-1/2 API IF	5-1/2 API Reg	6-5/8 API Reg	7-5/8 API Reg	
OUTSIDE DIAMETER (INCHES)		6	6-1/4 & 6-1/2	6-3/4	7-3/4 & 8	9	
INSIDE DIAMETER (INCHES)		2	2-1/4	2-3/8	3-1/16	3-3/4	
TYPE JAR		Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	
COMPLETE ASSEMBLY	Logan Part No.	605-013	605-014	605-015	605-016	605-017	
	Bowen No.	52498	52544	52680	52711	68346	

OPTIONAL

MANDREL BODY	Logan Part No.	AG1001	AG1000-48	AG1000-51	AG1000-59	AG1000-65	
SETTING TOOL	Bowen No.	448	22709-48	22709-51	22709-59	22709-65	
PISTON SETTING TOOL	Logan Part No.	AG1000-41.75	AG2001	AG1000-45	AG1000-53	AG1000-57	
	Bowen No.	22709-41.75	54309	22709-45	22709-53	22709-57	
SERVICE KIT	Logan Part No.	26000-055	26000-055	26000-055	26000-055	26000-055	
	Bowen No.	55403	55403	55403	55403	55403	
HI-TEMPERATURE PACKING SET	Logan Part No.	26000-085	26000-086	26000-087	26000-088	...	
	Bowen No.	148246	79015 & 147932	9738/006	20980/006 & 007	...	
PACKING SET	Logan Part No.	26000-049	26000-050	26000-051	26000-052	26000-053	
<i>Consists of:</i>	Bowen No.	14720	12383	9738	20980	66359	
MANDREL / WASHPIPE SEAL	Logan Part No.	568-344	568-345	568-348	568-432	568-438	
	Bowen No.	568344	568345	568348	568432	568438	
	No. Req'd	4	4	4	4	4	
LARGE MIDDLE BODY SEAL	Logan Part No.	568-248	568-252	568-256	568-261	568-265	
	Bowen No.	568248	568252	568256	568261	568265	
	No. Req'd	2	2	2	2	2	
SMALL MIDDLE BODY SEAL	Logan Part No.	568-246	568-250	568-254	568-259	...	
	Bowen No.	568246	568250	568254	568259	...	
	No. Req'd	3	3	3	3	3	
WASHPIPE SEAL	Logan Part No.	568-234	568-235	568-235	568-242	568-246	
	Bowen No.	568234	568235	568235	568242	568246	
MANDREL BODY FILL PLUG SEAL	Logan Part No.	568-011	568-011	568-011	568-011	568-011	
	Bowen No.	568011	568011	568011	568011	568011	
MIDDLE BODY FILL PLUG SEAL	Logan Part No.	568-006	568-006	568-006	568-006	568-011	
	Bowen No.	568006	568006	568006	568006	568011	
PISTON SEAL	Logan Part No.	568-236	568-237	568-239	568-426	568-430	
	Bowen No.	568236	568237	568239	568426	568430	

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Special Notes:

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- (2) Service Kit does not include Seal Setting Tools, which must be ordered separately.

When ordering, please specify:

- (1) Name and number of assembly or part
- (2) Connections, if other than standard
- (3) Outside diameter, if other than standard

Recommended Spares:

- (1) 1 Service Kit
- (2) 1 Washpipe
- (3) 2 Piston Assemblies
- (4) 16 Non-Extrusion Rings
- (5) 16 Seal Protector Rings
- (6) 4 Mandrel Body Fill Plugs
- (7) 4 Middle Body Fill Plugs
- (8) 8 Packing Sets
- (9) 1 Mandrel Body Setting Tool
- (10) 1 Piston Setting Tool

Z Type Hydraulic Jars

Z TYPE HYDRAULIC JARS

TOOL JOINT CONNECTION		4-1/2 API FH	4-1/2 API IF	5-1/2 API Reg	6-5/8 API Reg	7-5/8 API Reg		
OUTSIDE DIAMETER (INCHES)		6	6-1/4 & 6-1/2	6-3/4	7-3/4 & 8	9		
INSIDE DIAMETER (INCHES)		2	2-1/4	2-3/8	3-1/16	3-3/4		
TYPE JAR		Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel	Integral Mandrel		
COMPLETE ASSEMBLY	Logan Part No.	605-013	605-014	605-015	605-016	605-017		
	Bowen No.	52498	52544	52680	52711	68346		
MIDDLE BODY / MANDREL BODY SEAL	Logan Part No.	...	...	...	...	568-441		
	Bowen No.	...	...	...	...	568441		
WASHPIPE / MIDDLE BODY SEAL	Logan Part No.	...	...	...	...	568-263		
	Bowen No.	...	...	...	...	568263		
BACK-UP RINGS	Logan Part No.	...	...	...	...	...
	Bowen No.	...	...	...	...	...
MANDREL SEAL	Logan Part No.		
	Bowen No.		
MANDREL BODY SEAL	Logan Part No.		
	Bowen No.		

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Special Notes:

- (1) Packing Sets include all seals necessary to dress the tool. Non-Extrusion Rings and Seal Protector Rings are not included, and must be ordered separately.
- (2) Service Kit does not include Seal Setting Tools, which must be ordered separately.

When ordering, please specify:

- (1) Name and number of assembly or part
- (2) Connections, if other than standard
- (3) Outside diameter, if other than standard

Recommended Spares:

- (1) 1 Service Kit
- (2) 1 Washpipe
- (3) 2 Piston Assemblies
- (4) 16 Non-Extrusion Rings
- (5) 16 Seal Protector Rings
- (6) 4 Mandrel Body Fill Plugs
- (7) 4 Middle Body Fill Plugs
- (8) 8 Packing Sets
- (9) 1 Mandrel Body Setting Tool
- (10) 1 Piston Setting Tool