



BI-DIRECTIONAL COILED TUBING JARS

Overview

The Logan Bi-Directional Coiled Tubing Jar is designed to hit upward and downward blows. It can be dressed to only hit up or down. These tools' small outside diameters and shorter lengths make them ideal for milling, drilling, workover, remedial, or completion operations, especially in vertical, deviated, and ultra-deep wellbores. Independent hydraulic timers respond to any push or pull load. The Logan Bi-Directional Coiled Tubing Jar operates by straight push or pull with splines that are engaged at all times.

Construction

Logan Bi-Directional Coiled Tubing Jars are hydrostatically pressure balanced and can operate at any depth. They can be dressed with special packing to withstand temperatures above 350° F.

Assembly

The Logan Bi-Directional Coiled Tubing Jar is shipped in the closed (cocked) position. The Jar should not be suspended in this position, especially with any weight suspended below it, as the Jar may unintentionally fire and cause equipment damage or bodily harm.

Operation

The Logan Bi-Directional Coiled Tubing Jar operates by straight push or pull and has splines that are engaged at all times. For maximum effectiveness, it is recommended that the Logan Bi-Directional Coiled Tubing Jar be run in combination with a Logan Bi-Directional Coiled Tubing Energizer.

The Logan Bi-Directional Coiled Tubing Jar should be carefully examined prior to use to ensure it has been properly assembled and filled with coiled tubing jar fluid. The tool should be tested in a jar tester prior to field use. All connections should be checked to ensure that they have been tightened to the proper torque.

At no time during the push/pull cycle should the maximum push/pull load be exceeded. (See Strength Data Chart below for push/pull loads.) It is recommended that the operator use a low initial load — 30% to 50% of the maximum load — so the effects of the jarring action can be reviewed before the jarring load is increased.

When ordering, please specify:

- (1) Name and number of assembly or part
- (2) Outside diameter
- (3) Connections, if other than standard
- (4) Name and number of any desired spares
- (5) Outside diameter of spare parts

SPECIFICATIONS

COMPLETE ASSEMBLY	616-169	616-213	616-288
OUTSIDE DIAMETER (INCHES)	1-11/16 (1.708)	2-1/8 (2.156)	2-7/8 (2.906)
MINIMUM INSIDE DIAMETER (INCHES)	17/32 (.530)	21/32 (.656)	29/32 (.906)
CONNECTION	1 AM MT	1-1/4 API REG	2-3/8 PAC
LENGTH - FULLY CLOSED (FEET & INCHES)	4' - 6-13/16"	5' - 4-9/16"	5' - 10-13/16"
TOTAL STROKE (INCHES)	8-3/4	9 *	9-1/4
PUMP OPEN AREA (SQ IN)	1.28	2.23 *	3.98

STRENGTH AND TEST DATA

COMPLETE ASSEMBLY	616-169	616-213	616-288
OUTSIDE DIAMETER (INCHES)	1-11/16 (1.708)	2-1/8 (2.156)	2-7/8 (2.906)
TEST LOADS:			
Up	12,000	24,000 *	35,000
Down	1,500 †	2,500 †	4,000 †
MAX PUSH/PULL LOAD (LBS)	12,000 †	24,000 * †	35,000 †
Jar with Energizer:			
No weight bars between tools	13,500	24,000 *	40,000
With at least one weight bar between tools	15,500	30,000 *	50,000
All Other Cases	15,500	30,000 *	50,000
MAX LIFT LOAD AFTER JARRING			
JAR FULLY EXTENDED	69,000	125,000	225,000
TENSILE @ YIELD (LBS)			
TORQUE @ YIELD (FT-LBS)	800	1,700	4,000 *

* Data pending

† Requires special filling procedure. Do not over fill.

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OUTSIDE DIAMETER - INCHES	1-11/16	2-1/8	2-7/8
INSIDE DIAMETER - INCHES	17/32	21/32	29/32
CONNECTION SIZE (BOX UP)	1" AMMT	1-1/2 AMMT	2-3/8 PAC
CONNECTION SIZE (PIN DOWN)	1" AMMT	1-1/2 AMMT	2-3/8 PAC
COMPLETE ASSEMBLY	Logan Part No.	616-169	616-213
			616-288
COMPONENT PARTS			
TOP SUB	Logan Part No.	CC1000	CC1002
			CC1004
TOP SUB SEAL	Logan Part No.	568122	568128
			568226
PRESSURE BODY	Logan Part No.	CC2000	CC2002
			CC2004
PRESSURE BODY NON-EXTRUSION RING	Logan Part No.	CC14000	CC14002
			CC14004
PRESSURE BODY SEAL PROTECTOR RING	Logan Part No.	8-025	8-128
			8-226
PRESSURE BODY SEAL	Logan Part No.	568025	568128
			568226
PISTON BODY	Logan Part No.	CC3000	CC3002
			CC3004
FLOATER BODY	Logan Part No.	CC4000	CC4002
			CC4004
FLOATER BODY NON-EXTRUSION RING	Logan Part No.	CC14000	CC14002
			CC14004
FLOATER BODY SEAL PROTECTOR RING	Logan Part No.	8-025	8-128
			8-226
FLOATER BODY SEAL	Logan Part No.	568025	568128
			568226
SPLINE BODY	Logan Part No.	CC5000	CC5002
			CC5004
MANDREL	Logan Part No.	CC6000	CC6002
			CC6004
MANDREL ID SEAL	Logan Part No.	568118	568120
			568220
MANDREL EXTENSION	Logan Part No.	CC7000	CC7002
			CC7004
NUT	Logan Part No.	CC8000	CC8002
			CC8004
NUT ID SEAL PROTECTOR RING	Logan Part No.	8-117	8-120
			8-220
NUT ID SEAL	Logan Part No.	568118	568120
			568220
NUT OD NON-EXTRUSION RING	Logan Part No.	CC15000	CC15002
			CC15004
	No. Req'd	2	2
			2
NUT OD SEAL PROTECTOR RING	Logan Part No.	8-121	8-221
			8-327
	No. Req'd	2	2
			2
NUT OD SEAL	Logan Part No.	568914	568221
			568327
NUT OD OPTISEAL	Logan Part No.	CC19000-001	CC19002-001
			CC19004-001
UP PISTON	Logan Part No.	CC9000	CC9002
			CC9004
DOWN PISTON	Logan Part No.	CC10000	CC10002
			CC10004
FLOATER	Logan Part No.	CC11000	CC11002
			CC11004
FLOATER ID NON-EXTRUSION RING	Logan Part No.	CC13000	CC13002
			CC13004
FLOATER ID SEAL PROTECTOR RING	Logan Part No.	8-117	8-120
			8-220
FLOATER ID SEAL	Logan Part No.	568911	568120
			568220
FLOATER ID OPTISEAL	Logan Part No.	CC19000-002	CC22002
			CC22004
FLOATER OD NON-EXTRUSION RING	Logan Part No.	CC15000	CC15002
			CC15004
FLOATER OD SEAL PROTECTOR RING	Logan Part No.	8-121	8-221
			8-327
FLOATER OD SEAL	Logan Part No.	568914	568221
			568327
FLOATER OD OPTISEAL	Logan Part No.	CC19000-001	CC19002-001
			CC19004-001
SPLINE	Logan Part No.	CC12000	CC12002
			CC12004
	No. Req'd	2	2
			4

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REDRESS KIT

<i>Consists of:</i>	Logan Part No.	CC21000	CC21002	CC21004
FLOATER ID NON-EXTRUSION RING	Logan Part No.	CC13000	CC13002	CC13004
	No. Req'd	1	1	1
PRESSURE & FLOATER BODY OD NON-EXTRUSION RING	Logan Part No.	CC14000	CC14002	CC14004
	No. Req'd	2	2	2
FLOATER & NUT OD NON-EXTRUSION RING	Logan Part No.	CC15000	CC15002	CC15004
	No. Req'd	3	3	3
SEAL KIT *	Logan Part No.	CC20000	CC20002	CC20004
	No. Req'd	1	1	1
SPLINE	Logan Part No.	CC12000	CC12002	CC12004
	No. Req'd	2	2	4

* Seal Kit includes O-Rings, Seal Protector Rings, and Opti-Seals.

REQUIRED ACCESSORIES

COMBINATION WRENCH SIZE FOR MANDREL EXTENSION - INCHES		13/16	1	1-3/8
	No. Req'd	2	2	2
SIX-POINT SOCKET SIZE FOR NUT - INCHES		7/8	1-1/8	1-1/2
FLOATER ID SETTING TOOL	Logan Part No.	CC17000	CC17002	CC17004
FLOATER REMOVAL TOOL	Logan Part No.	CC18000	CC18002	CC18004
POLYPAK STRETCHER **	Logan Part No.	CD11000	CD11002	CD11004
POLYPAK INSTALLATION TOOL **	Logan Part No.	CD12000	CD12002	CD12004

** Used for installing seals onto OD of Nut and Floater