



Logan Surface Bumper Jar

Overview

The Logan Surface Bumper Jar is installed in the drill string at the surface and is used whenever the downhole drilling, fishing, or washover running string becomes stuck and requires a heavy downward force to release it. It is often used to free keyseated drill pipe and drill collars, and initiate sharp jarring blows down the string to actuate drilling bumper subs, bumper safety joints, and other similar downhole bumping tools. It is also useful for transmitting heavy downward impact to release imbedded grapping tools. Since it is not necessary that the two striking surfaces meet, the tool's 48-inch stroke allows the fish to be hammered down farther than what is possible with conventional jarring tools. Because it is intermittently used only on the surface to release a stuck fish, this tool has an extended service life when compared to conventional bumper subs.

Construction

The Surface Bumper Jar basically consists of a mandrel assembly working inside a bowl assembly.

Operation

Full circulation through the tool can be maintained during operation and full torque may be utilized in either direction. The jarring force is set by a simple adjustment.

Setting Load (Tons) 0 – 50 *
**100,000 lbs.*

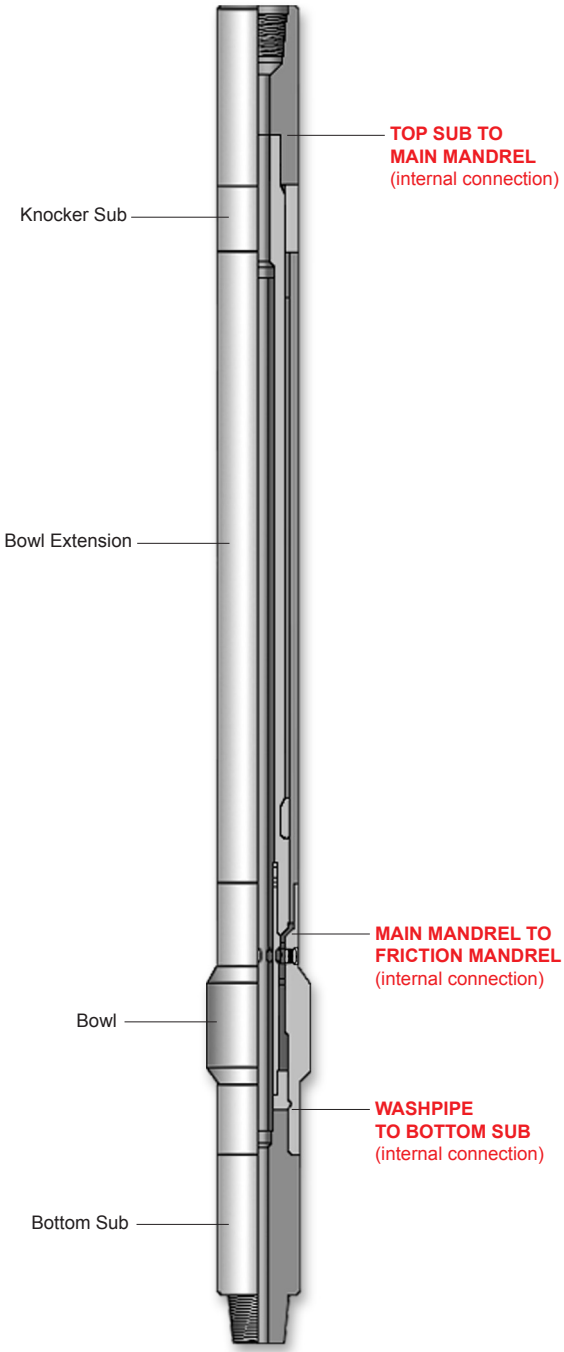
STRENGTH AND TEST DATA

COMPLETE ASSEMBLY	609-001
OUTSIDE DIAMETER (IN)	7
BOWL OUTSIDE DIAMETER (IN)	9
MAX TORQUE @ YIELD (FT-LBS)	33,800
MAX TENSILE LOAD @ YIELD (FT-LBS)	845,000
MAX PUMP PRESSURE (PSI)	8,000
SETTING LOAD (TONS)	0 – 50 *

** 100,000 lbs.*

MAX. RECOMMENDED TIGHTENING TORQUES (FT-LBS)

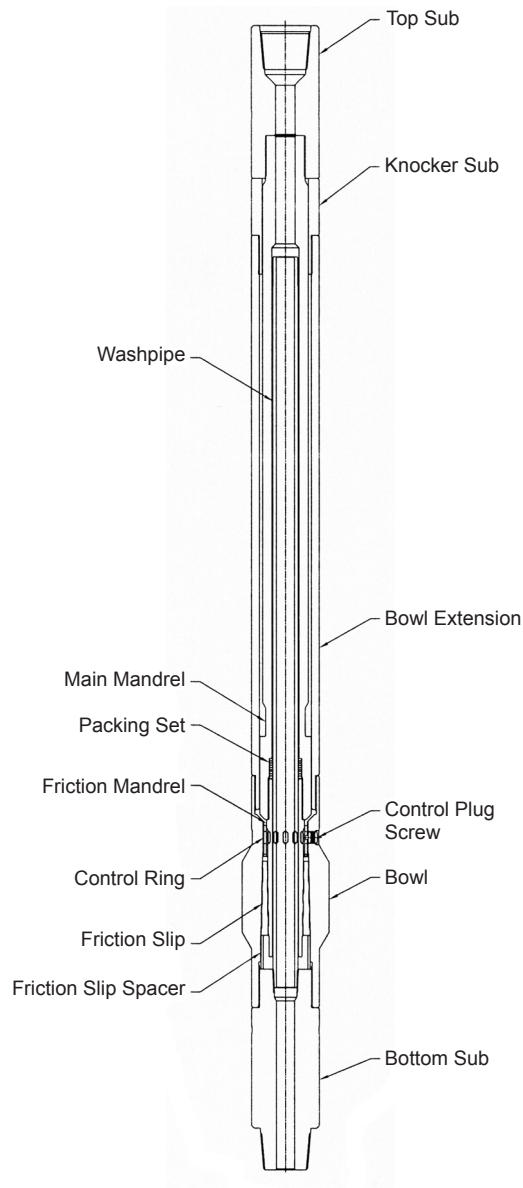
TOP SUB TO MAIN MANDREL	16,900
KNOCKER SUB TO BOWL EXTENSION	16,900
BOWL EXTENSION TO BOWL	17,900
MAIN MANDREL TO FRICTION MANDREL	2,700
WASHPIPE TO BOTTOM SUB	2,700
BOWL TO BOTTOM SUB	17,900





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TOOL JOINT CONNECTION		4-1/2 API IF
OUTSIDE DIAMETER (INCHES)		7
INSIDE DIAMETER (INCHES)		1-7/8
STROKE		48
COMPLETE ASSEMBLY	Logan Part No.	609-001
	Bowen No.	74520
TOP SUB	Logan Part No.	AS1000
	Bowen No.	13587
KNOCKER SUB	Logan Part No.	AS2000
	Bowen No.	74522
BOWL EXTENSION	Logan Part No.	AS3000
	Bowen No.	74523
BOWL	Logan Part No.	AS4000
	Bowen No.	74524
BOTTOM SUB	Logan Part No.	AS5000
	Bowen No.	74525
MAIN MANDREL	Logan Part No.	AS6000
	Bowen No.	78609
WASHPIPE	Logan Part No.	AS7000
	Bowen No.	13588
PACKING SET	Logan Part No.	AS8000
	Bowen No.	66816
FRICITION MANDREL	Logan Part No.	AS9000
	Bowen No.	78610
CONTROL RING	Logan Part No.	AS10000
	Bowen No.	844
FRICITION SLIP	Logan Part No.	AS11000
	Bowen No.	B-236
FRICITION SLIP SPACER	Logan Part No.	AS12000
	Bowen No.	13594
CONTROL RING PLUG	Logan Part No.	AS13000
	Bowen No.	4144
SERVICE EQUIPMENT		
PLUG & CONTROL RING WRENCH	Logan Part No.	AS14000
<i>1 with Each Assembly</i>	Bowen No.	86
MANDREL SOCKET WRENCH	Logan Part No.	AS15000
<i>Sold Separately</i>	Bowen No.	14773
LIFTING SUB	Logan Part No.	AS17000
<i>Sold Separately</i>	Bowen No.	242
FRICITION SLIP LUBE (1 Tube)	Logan Part No.	AS18000
<i>Sold Separately</i>	Bowen No.	74285



When ordering, please specify:

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

Recommended Spare Parts:

- (1) 2 Washpipes
- (2) 1 Friction Mandrel
- (3) 1 Control Ring
- (4) 1 Friction Slip
- (5) 1 Control Ring Plug
- (6) 6 Packing Sets