



# Surface Bumper Jars

## 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 key seated 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 grappling 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.

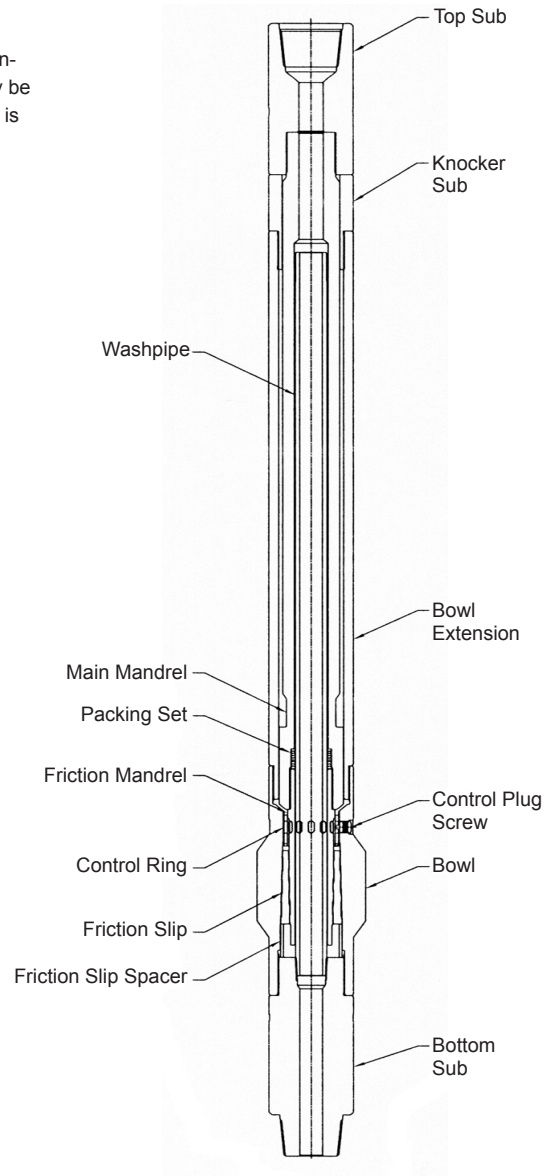
## When ordering, please specify:

- (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

|                                  |  |
|----------------------------------|--|
| <b>TOOL JOINT CONNECTION</b>     | 4-1/2 API IF                                     |
| <b>OUTSIDE DIAMETER (INCHES)</b> | 7  |
| <b>INSIDE DIAMETER (INCHES)</b>  | 1-7/8  |
| <b>STROKE</b>                    | 48   |
| <b>COMPLETE ASSEMBLY</b>         | <b>Logan Part No. 609-001</b><br>Bowen No. 74520 |
| <b>TOP SUB</b>                   | <b>Logan Part No. AS1000</b><br>Bowen No. 13587  |
| <b>KNOCKER SUB</b>               | <b>Logan Part No. AS2000</b><br>Bowen No. 74522  |
| <b>BOWL EXTENSION</b>            | <b>Logan Part No. AS3000</b><br>Bowen No. 74523  |
| <b>BOWL</b>                      | <b>Logan Part No. AS4000</b><br>Bowen No. 74524  |
| <b>BOTTOM SUB</b>                | <b>Logan Part No. AS5000</b><br>Bowen No. 74525  |
| <b>MAIN MANDREL</b>              | <b>Logan Part No. AS6000</b><br>Bowen No. 78609  |
| <b>WASHPIPE</b>                  | <b>Logan Part No. AS7000</b><br>Bowen No. 13588  |
| <b>PACKING SET</b>               | <b>Logan Part No. AS8000</b><br>Bowen No. 66816  |
| <b>FRICTION MANDREL</b>          | <b>Logan Part No. AS9000</b><br>Bowen No. 78610  |
| <b>CONTROL RING</b>              | <b>Logan Part No. AS10000</b><br>Bowen No. 844   |
| <b>FRICTION SLIP</b>             | <b>Logan Part No. AS11000</b><br>Bowen No. B-236 |



## REPLACEMENT PARTS

|  |  |
|--|--|
| <b>FRICTION SLIP SPACER</b>  | <b>Logan Part No. AS12000</b><br>Bowen No. 13594 |
| <b>CONTROL RING PLUG</b>   | <b>Logan Part No. AS13000</b><br>Bowen No. 4144  |
| <b>PLUG &amp; CONTROL RING WRENCH</b><br><i>1 with each Assembly</i> | <b>Logan Part No. AS14000</b><br>Bowen No. 86    |
| <b>MANDREL SOCKET WRENCH</b><br><i>Sold Separately</i>               | <b>Logan Part No. AS15000</b><br>Bowen No. 14773 |
| <b>LIFTING SUB</b><br><i>Sold Separately</i>                         | <b>Logan Part No. AS17000</b><br>Bowen No. 242   |
| <b>FRICTION SLIP LUBE</b> (1 Tube)<br><i>Sold Separately</i>         | <b>Logan Part No. AS18000</b><br>Bowen No. 74285 |

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