



“BDDB6” Top No-Go Lock Mandrel

The “**BDDB6**” series **Lock Mandrel** is a top no-go locking device designed to be landed and locked in a BDDB6 Landing Nipple and BDB6 series hydraulic safety valve landing nipples.

The design of this lock mandrel series features an internal fishing neck that allows a large bore through the lock. When set in position, an internal sleeve, the expander tube, is held in the locked position by a collet and shear pins that prevent unlocking at high flow rates. The BDDB6 lock mandrel is also designed to use BDZ6 tattletale type running tool. These tools give the slickline operator a positive indication that the assembly is installed in the nipple and is in the locked position. Optional high-temperature packing for temperatures above 325 °F (163 °C) is available for the BDDB6 Lock Mandrel.

The BDDB6 Lock Mandrel can be attached to subsurface control devices such as surface-controlled subsurface safety valves, blanking plugs and standing valves. The lock anchors the valve or accessory in position in the tubing string. The lock and accessory are landed in an appropriate nipple by standard slickline methods.

The BDDB6 lock is run into the well on the BDZ6 running tool. When the lock reaches the landing nipple no-go shoulder, the lock stops at the no-go shoulder of the landing nipple preventing further downward travel of the lock and the attachments. Downward jarring on the lock will shear the pins that hold the running tool plunger in the running position. With continued downward jarring, the collet moves down, its finger engage the lock housing collet recess, and the lock sets in the landing nipple. The brass pins engage a groove in the collet when it is set. When the running tool is returned to the surface, the garter spring on the BDZ6 running tool will have shifted position, indicating whether or not the lock is set properly.



BDDB6
Lock
Mandrel

APPLICATION

- Anchor and seal pressure control device in single or dual completions

BENEFITS

- One trip setting
- One trip retrieval
- Operational versatility

FEATURES

- Top no-go style lock
- Internal fishing neck
- Two hold-down mechanisms
- Tattletale on running tool
- Field-proven design
- Available in various materials
- Choice of sealing systems





Black Diamond WELL SERVICES

The BDDDB6 Lock Mandrel is pulled from the landing nipple with BDPRS pulling tool. The tool string is run into the well until the collet fingers of the BDPRS pulling tool engage the locking recess of the internal fishing neck in the lock. After pressure has been equalized across the assembly, upward jarring shifts the expander tube up, shearing the pins in the neck of the lock collet, and disengaging the fingers of the lock collet. As the lock collet is pulled upward, the locking dogs are released. Then the pulling tool, the BDDDB6 lock and the attachments can be removed from the well.

Lock Type	No-Go ID		Packing OD		Min ID		Part Number
	Inch	mm	Inch	mm	Inch	mm	
BDDDB6	3.172	80.6	3.125	79.4	1.875	47.6	LM317DB6
	3.234	82.1	3.187	80.9			LM323DB6
	3.296	83.7	3.250	82.6			LM329DB6
	3.390	85.3	3.312	84.1			LM339DB6
	3.484	88.5	3.437	87.3			LM348DB6
	3.547	90.1	3.500	88.9	2.250	57.2	LM354DB6
	3.609	91.7	3.562	90.5			LM360DB6
	3.657	92.9	3.625	92.1			LM365DB6
	3.735	94.9	3.687	93.6			LM373DB6
	3.785	96.1	3.750	95.3			LM378DB6
	3.843	97.6	3.813	96.9			LM384DB6
	3.910	99.3	3.875	98.4			LM391DB6
	3.975	101.0	3.937	100.0			LM397DB6
	4.046	102.8	4.000	101.6			LM404DB6
	4.110	104.4	4.063	103.2			LM411DB6
	4.172	106.0	4.125	104.8	LM417DB6		
	4.360	110.7	4.312	109.5	2.781	70.6	LM436DB6
	4.482	113.8	4.437	112.7			LM448DB6
	4.545	115.4	4.500	114.3			LM454DB6
	4.610	117.1	4.562	115.9			LM461DB6
	5.732	145.6	5.687	144.4	4.000	101.6	LM573DB6
BDDDB6-MP	5.740	145.8	5.750	146.1			LM574DB6
BDDDB6	5.795	147.2	5.750	146.1			LM579DB6
	5.858	148.8	5.813	147.7			LM585DB6
BDDDB6-MP	5.890	149.6	5.813	147.7			LM589DB6
BDDDB6	5.920	150.4	5.875	149.2			LM592DB6
	5.982	151.9	5.937	150.8			LM598DB6
	6.045	153.5	6.000	152.4			LM604DB6