



**DRAG BLOCK TUBING
ANCHOR/CATCHER - RH**
5-1/2" X 2-3/8"

Manual No:
DL-325-5500-409

Revision: **A**

Revision Date:
01/31/2011

Authored by: *B.Mathis*

Approved by: *D.Hushbeck*

A) DESCRIPTION

The D&L Drag Block Tubing Anchor/Catcher (or DB Anchor/Catcher), is a retrievable positive-action tubing anchor designed to hold the tubing string in tension or compression. It has drag blocks to allow the anchor to be run deeper than conventional drag spring anchors. The anchor prevents movement of the tubing during pumping strokes; and holds it stationary if it should part. The use of a tension tubing anchor increases pump efficiency, reduces rod and tubing wear, and keeps tubing and rods from falling into the well in case of a part.

B) SPECIFICATION GUIDE

CASING		RECOMMENDED HOLE SIZE (INCHES)	TOOL OD (INCHES)	TOOL ID (INCHES)	THREAD CONNECTION BOX UP / PIN DOWN	PART NUMBER
SIZE (INCHES)	WEIGHT (LBS/FT)					
5-1/2	13.0 - 20.0#	4.778 - 5.044	4.500	2.00	2-3/8 EUE	32555RH

C) SETTING PROCEDURES

At the desired setting depth, rotate tubing to the right with hand tongs - five (5) to eight (8) turns, depending on casing weight. After slips contact casing, pull full calculated tension. Slack off and, while holding right-hand torque on tubing, alternately pull up and set down weight several times to firmly set the slips. Release torque and apply full tension.

D) RELEASING PROCEDURES

D-1) NORMAL RELEASE

The Anchor-Catcher should be released with the tubing in slight compression. Apply slight amount of set-down weight. Rotate to the left five (5) to eight (8) turns and reciprocate the tubing two (2) or three (3) times for a distance of several feet while rotating an additional turns to the left. Prevent right-hand rotation when retrieving anchor.

D-2) EMERGENCY RELEASE

If it is impossible to release the Anchor-Catcher with normal release procedures, emergency shear release can be obtained with an upward pull. Shear value is determined by the quantity of shear screws installed in tool (5,000# per screw).

D & L OIL TOOLS
P.O. BOX 52220 TULSA, OK 74152
PHONE: (800) 441-3504



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E) DISASSEMBLY

E-1) Clamp coupling (1) in vise.

E-1.1) Unscrew and remove crossover sub (4) from inner mandrel (2).

E-1.2) Unscrew and remove shear screws (14) from shear ring (5).

E-1.3) Remove shear ring (5) from inner mandrel (2).

E-1.4) Unscrew and remove set screws (16) from upper cone (9).

E-1.5) Remove slip cage assembly from inner mandrel (2) and disassemble:

E-1.5.1) Remove slip assemblies and disassemble:

E-1.5.1.1) Unscrew and remove button head cap screws (17) from slips (10).

E-1.5.1.2) Separate slips (10) and slip springs (13).

E-1.5.2) Remove lower cone (8) from slip cage (6).

E-2) Remove coupling (1) from vise. Clamp lower end of inner mandrel (2) in vise.

E-2.1) Unscrew and remove coupling (1) from inner mandrel (2).

E-2.2) Unscrew and remove set screws (15) from stop ring (7).

E-2.3) Remove stop ring (7) from inner mandrel (2).

E-2.4) Compress drag blocks (22) using drag block body assembly tool (T1, T2). Unscrew and remove drag block retainer (11) from upper cone (9).

E-2.5) Release drag blocks (12). Remove drag blocks (12) and drag block springs (3) from upper cone (9).

E-2.6) Unscrew and remove upper cone (9) from inner mandrel (2) (**NOTE:** Left-hand threads).

E-2.6.1) Remove o-ring (18) from upper cone (9).

E-3) Remove inner mandrel (2) from vise.

F) ASSEMBLY

NOTE: Clean and inspect all parts. Replace all worn and damaged parts. Install parts in proper order & orientation.

F-1) Clamp lower end of inner mandrel (2) in vise.

F-1.1) Install o-ring (18) in groove in upper cone (9).

F-1.2) Screw upper cone (9) onto inner mandrel (2) (**NOTE:** Left-hand threads).

CAUTION: Do not rip or tear o-ring during installation.

F-1.3) Install drag blocks (12) and drag block springs (3) in upper cone (9). Compress drag blocks (22) using drag block body assembly tool (T1, T2).

F-1.4) Screw drag block retainer (11) onto upper cone (9) capturing ends of drag blocks (12). Release drag blocks (12).

F-1.5) Install stop ring (7) onto inner mandrel (2).

F-1.6) Align threaded holes in stop ring (7) with pocket holes in inner mandrel (2). Screw set screws (15) into stop ring (7).

F-1.7) Screw coupling (1) onto inner mandrel (2).

F-2) Remove inner mandrel (2) from vise. Clamp coupling (1) in vise.

F-2.1) Assemble slip cage assembly and install on inner mandrel (2):

F-2.1.1) Install lower cone (8) into slip cage (6).

F-2.1.2) Assemble slip assemblies and install in slip cage (6):

F-2.1.2.1) Set slip springs (13) in place on slips (10).



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F) ASSEMBLY (cont'd)

F-2.1.2.2) Screw button head cap screws (17) into slips (10).

F-2.1.3) Install slip cage assembly on inner mandrel (2).

F-2.2) Align slots in slip cage (6) with threaded holes in upper cone (9). Screw set screws (16) into upper cone (9).

F-2.3) Install shear ring (5) onto inner mandrel (2).

F-2.4) Align threaded holes in shear ring (5) with pocket holes in inner mandrel (2). Screw shear screws (14) into shear ring (5). Tighten and back out 1/4 turn.

F-2.5) Screw crossover sub (4) onto inner mandrel (2).

F-3) Unclamp coupling (1) from vise and remove assembled tool.

G) TOOLS

ITEM	QTY	DESCRIPTION	PART NUMBER
T1	1	DRAG BLOCK ASSEMBLY TOOL	AT055110
T2	20	SQUARE SET SCREW 1/2-13 UNC X 4"	SQS050C400



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H) PARTS LIST

ITEM	QTY	DESCRIPTION	MATERIAL	P/N 32555RH (13.0 - 20.0#)
1	1	COUPLING	L-80	CP2375E2875E
2	1	INNER MANDREL	L-80	32555210RHS
3	20	DRAG BLOCK SPRING		9100900
4	1	CROSSOVER SUB	1026	CH2875E2375E
5	1	SHEAR RING	L-80	32555930
6	1	SLIP CAGE	L-80	32555320
7	1	STOP RING	L-80	32555910
8	1	LOWER CONE	L-80	32555420
9	1	UPPER CONE	L-80	32555410RHS
10	3	SLIP	1018	32055112
11	1	DRAG BLOCK RETAINER	L-80	32555920
12	4	DRAG BLOCK	8620	9056900
13	6	SLIP SPRING		32055950
14	12	5/8-18 UNF X .45 (5000# EA)	BRASS	32045910
15	4	SET SCREW 3/8-16 UNC X 1/2	STEEL	SSS037C050
16	3	SET SCREW 1/2-20 UNF X 1/2	STEEL	SSS050F050
17	3	BUTTON HEAD SOCKET CAP SCREW #8-32 UNC X 1/2	STEEL	BHSC832C050
18	1	235-90 O-RING		90235

ASSEMBLED WEIGHT	78 LBS
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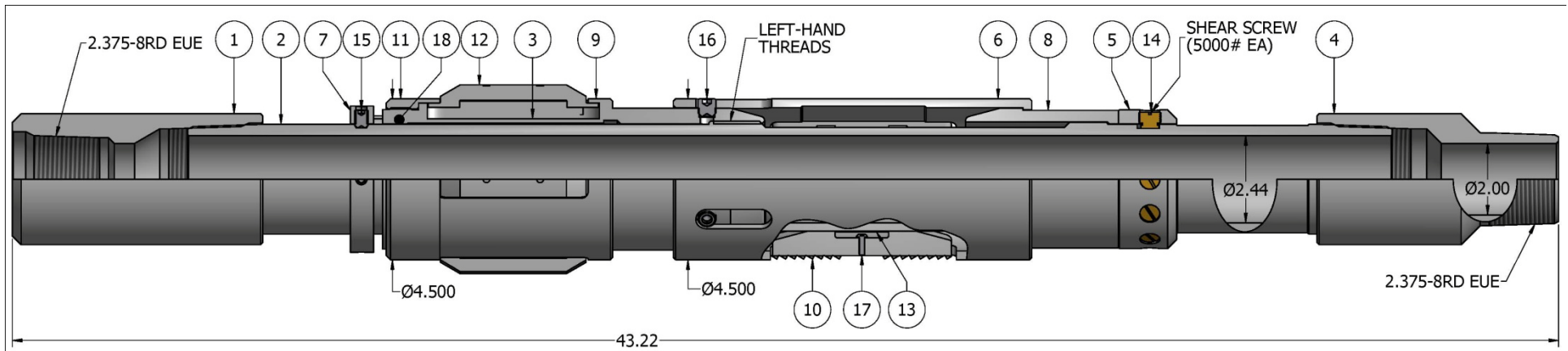
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I) TECHNICAL ILLUSTRATION



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