# Upper Completions

## 5.000” Big Bore Anchor Catcher

## Technical Unit: TU4006

REVISION: 2023 May
May 15, 2023

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## A. INTRODUCTION

The Innovex Tubing Anchor/Catcher is a rugged anchor that employs drag blocks (rather than drag springs) and fully enclosed large cross-section slips for maximum safety. It has a tension shear release that is easily adjustable in the field.

To set the slips, run to setting depth and rotate to the left. Pick up and sit down several times while turning to the left to ensure a tight set. To release, rotate to the right with the tubing in neutral. The slips will retract to the run-in position and the tubing can be pulled from the well or the anchor relocated. If the anchor is stuck, pick up and sit down several times while turning to the right to free the slips.

Should this fail to free the anchor, pull tension to break the shear pins. This will unload the lower cone and pick up slips from above. The anchor can now be pulled from the well but cannot be set again until it is redressed.

## B. SPECIFICATIONS

| DIMENSIONAL SPECIFICATION | | | | | |
|---|---|---|---|---|---|
| SIZE (INCHES) | WEIGHT (LBS) | | GAUGE RING OD (INCHES) | ANCHOR BORE (INCHES) | CONNECTION |
| | FROM | TO | | | |
| **2.875** | 6.4 | 6.5 | 2.250 | 1.00 | 1.900 NU10Rd |
| **3.500** | 7.7 | 9.3 | 2.812 | 1.62 | 1.900 EU10Rd |
| **4.000** | 9.5 | 11.6 | 3.281 | 1.94 | 2.375 EU8Rd |
| **4.500** | 15.1 | 16.6 | 3.500 | 1.94 | 2.375 EU8Rd |
| | 9.5 | 11.6 | 3.844 | 2.38 | 2.875 EU8Rd |
| **5.000** | 11.5 | 4.125 | 4.125 | 2.38 | 2.875 EU8Rd |

# C. OPERATIONAL PROCEDURES

## C-1 – Operation

1. Run to setting depth and rotate several turns to the left to set the slips.
2. Pick up and sit down several times while turning to the left to insure a tight set.
3. To release, rotate to the right with tubing in neutral. The slips will retract to the run-in position and the tubing string can be pulled from the well, or the anchor relocated.
4. If the anchor is stuck, pick up and sit down several times while turning to the right to free up parts.
5. Should this still fail to free anchor, pull tension to break shear pins. This will unload the lower cone and pick up slips from above.
6. The anchor can now be pulled from the well but cannot be set again until redressed.

## C-2 – Disassembly

1. With top in vise, unscrew bottom (it may be necessary to back up on mandrel) and slide off lower cone/bottom assembly.
2. Remove thread stop screw and unscrew upper cone from mandrel by rotating control body.
3. Slide assembly off mandrel (slips will now come free).
4. Remove torque screws and slide upper cone out of control body.
5. Unscrew lower cone from shear pin cover and remove shear pins to disassemble lower cone/bottom assembly.
6. Unscrew drag block retainer from control body to disassemble drag blocks and springs.

**NOTE: It is not necessary to remove top from mandrel.**

## C-3 - Assembly

The following instructions do not list steps that are obvious to a trained tool hand, such as application of grease or being careful with seal surfaces.

Assembly procedures are essentially the reverse of disassembly. Care should be taken during assembly to ensure all threads are greased adequately. Be sure to install thread stop screw through long slot in control body, but only after sliding upper cone into control body and screwing assembly, with slips installed, onto mandrel all the way to stop. Before tightening, be sure to support the bottom with a vise stand, or similar.

CAUTION: DO NOT WRENCH CONTROL BODY CAP TIGHT WITH UPPER CONE AGAINST STOP SCREW.

### C-4 - Shear Pin Adjustment

The tubing anchor is shipped with 12ea. 3/8" dia. shear pins, each adding 4000 lbs. of shear force required to activate the emergency release.

To adjust the number of pins, unscrew the shear pin cover from lower cone and slide down, exposing the pins.

Remove pins as required and re-assemble.

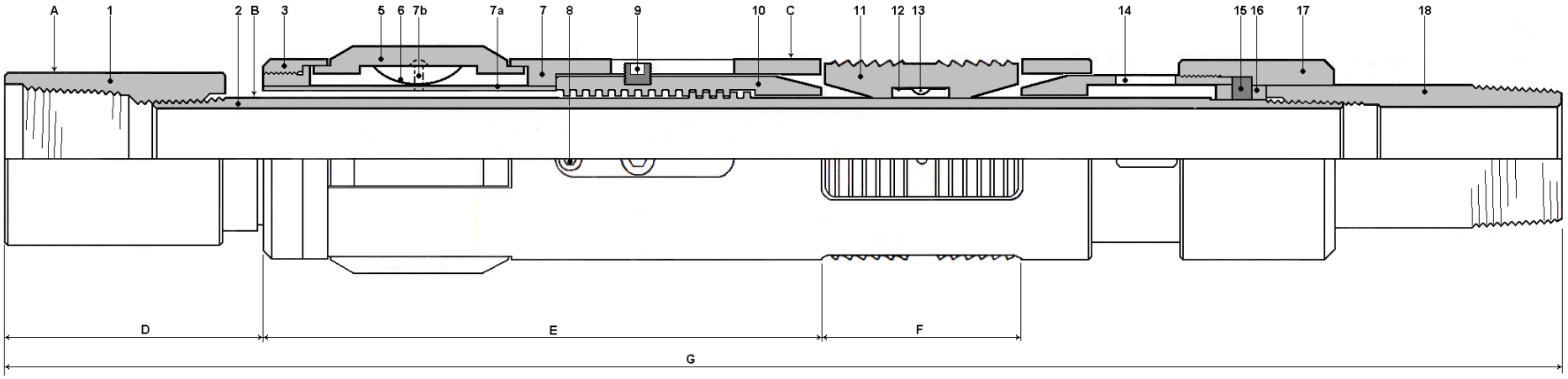
## D. STORAGE & HANDLING GUIDELINES

All Upper Completions products from Innovex should at all times be stored in a manner which prevents exposure to natural elements: wind, water, excessive temperatures (hot or cold), and stored in a clean environment to prevent contamination by elements which might adversely affect proper function (i.e. sand, loose soil, dust).

- Storage temperature should remain below 80°F for any packers with elastomeric components (O-rings, packing elements, etc.) installed.
- Storage location for any packers with elastomeric components installed should have no direct exposure to sunlight. Packing elements should be shielded from ultraviolet light by covering in a protective material.
- Store in a dry area, no rain, seawater, or condensation.

Prior to storage, the packer should be assembled with internal thread connections made-up hand tight. Handle and store the tool in the running position with the lugs in the appropriate j-slot section which prevents undesired compression and deformation of packing elements. Store the tool in a manner which prevents undesired stresses on dynamic components such as Slips, Drag Block, and Sleeves.

## E. DIMENSIONAL DATA & BILL OF MATERIALS




| PART LIST | | | | | | | |
|---|---|---|---|---|---|---|---|
| KEY # | QTY | PART # | NAME | KEY# | QTY | PART # | NAME |
| 1 | 1 | 90350 | TOP | 9 | 3 | 11156N | TORQUE SCREW (PLUG) |
| 2 | 1 | 90270 | MANDREL | 10 | 1 | 90320 | UPPER CONE |
| 3 | 1 | 90301 | CONTROL BODY CAP | 11 | 3 | 50TAC | SLIP |
| 5 | 3 | 50560(11.5-15#) | DRAG BLOCK (CARBIDE) | 12 | 3 | 50725 | SLIP SPRING |
| 5 | 3 | 50550(15-18#) | DRAG BLOCK (CARBIDE) | 13 | 3 | 11334C | SLIP SPRING SCREW |
| 6 | 12 | 50100 | DRAG BLOCK SPRING (LEAF) | 14 | 1 | 90260 | LOWER CONE |
| 7 | 1 | 90292-K | CONTROL BODY | 15 | 12 | 72864 | SHEAR PIN |
| 7a | 1 | 90280 | DRAG BLOCK SLEEVE | 16 | 1 | 90340 | SHEAR PIN RING |
| 7b | 1 | 11356C | CAP SCREW | 17 | 1 | 90331 | SHEAR PIN CAP |
| 8 | 1 | 11235C | THREAD STOP SCREW | 18 | 1 | 90310 | BOTTOM |

| DIMENSIONS | | | | | | |
|---|---|---|---|---|---|---|
| A | B | C | D | E | F | G |
| 3.69” | 4.12” | 3.84” | 5.50” | 10.81” | 4.12” | 29.50” |

## F. REVISION HISTORY

| DATE | REVISION | DESCRIPTION OF CHANGES | REVISED BY | CHECKED BY |
|---|---|---|---|---|
| | | NEW RELEASE | | |
| 05/15/2023 | 2023 May | Updated Format | N. Alexander | |