

## Setting and Releasing Tubing Anchor Catcher

### Preparation

-We highly recommend that proper care be taken to prep/clean the casing prior to running in with a TAC (e.g. bit & scraper, string mill, etc.) to ensure tool will actuate properly.

**-The Drag Springs should not be used as a carrying handle for this tool.** Permanent distortion of the spring and possible serious difficulty in running can result.

-Box end sub is the top of the TAC, pin is bottom.

**-Do not tighten through the TAC when attaching it to the tubing string.** When attaching tubing to the TAC, put a backup on the TAC subs. This will help prevent over tightening and possible galling of inner threads on TAC.

-Always confirm TAC placement in relation to the pump and/or any other downhole assembly. Slimline TACs may safely be set below the seat nipple to accommodate pumps/tools larger than the TAC ID.

### Running-In

**NOTE:** Unless requested otherwise all TACs will be LEFT HAND SET.

-To prevent the tool from setting while running in, it is advisable to occasionally (every 5-10 stands) use pipe wrench to put a **right** hand turn in the tubing (*If running a right hand set TAC put a left hand turn in tubing*).

**-SLOW DOWN**, especially when going through a tight spot or when hitting fluid.

### Setting TAC

At the desired setting depth rotate the tubing to the **left** (*to the RIGHT if TAC is right hand set*) until the slips contact the casing (approximately 6-8 turns for 7" & 5-1/2" TAC's and 8-13 for 4-1/2" Slimline TAC's at the tool). Whenever possible setting the TAC should be done with pipe wrenches. **However, if power tongs are needed please ensure the torque on the tongs is several hundred lbs less than what the tubing string was initially tightened with. This will help prevent tubing from backing off.** The tubing will torque up when the slips have set. To ensure all tubing torque works its way down to the tool, **maintain left hand torque** (*right hand if TAC is right hand set*) and alternate several times between setting down and pulling up. During this slip setting operation the strain pulled should be at least equal to the final strain that will be applied when the tubing is landed and full set-down weight should be applied. Set back to neutral, torque again and then tubing is ready to be landed.

**NOTE:** As not all weight indicators are accurate, tubing tension should always be applied in inches of stretch rather than pounds of pull, to ensure accurate tension is applied.

### Normal Releasing Procedure

The Anchor Catcher should be released with the tubing in slight compression as the upper cone contacts slips, so that the lower cone will be completely retracted when the slips lose their grip on the casing. This feature prevents dulling of the slips due to incomplete retraction of the lower cone during retrieving. If this is not possible however, the tool can be released without compression or even with the tubing string in tension. Rotate the tubing to the **right** (*left if TAC is right hand set*) 5 to 8 turns at the tool to retract the cones from the slips and allow the slips to move back into the housing. Occasionally, use pipe wrench to turn the tubing to the **right** (*to the LEFT if TAC is right hand set*) while coming out to ensure slips are all the way backed off.

### Emergency Release

If the Tubing Anchor Catcher does not release in the above manner, an up-strain greater than the total shear strength of the shear pins plus the weight of the tubing will shear the pins and release the TAC.

### Stretch Formula

**Length**= pull force in thousands of lbs. x length of feet in thousands x Stretch constant, in inches of stretch per thousand pounds of pull per thousand feet of length.

(Example) 20,000 lbs of pull on 8000 ft. of 2.375 OD, 4.7#, 1.995 ID tubing.

**20 x 8 x 0.30675 (stretch constant for 4.7# 2.375 tubing)**

**=49.08 inches of stretch**

\*Stretch constant for 6.5# 2.875 tubing is .22075