

# Casing Pulling Tool (CPT)

## Enhances Rig Pulling Capacity, Saving Time and Money

TIW offers the CPT, a downhole casing pulling tool, that retrieves casing in situations where the drilling rig or work string does not have sufficient capacity. A multistage hydraulic actuator, the CPT functions as a hydraulic jack and can be used as a replacement for surface casing jacking systems.

Designed with a rotary shouldered pin connection on the bottom to allow the use of casing cutting and/or standard fishing tools, the CPT provides the pulling force required to retrieve the casing. It can also be used to dislodge other material from the casing or wellbore.

## How It Works

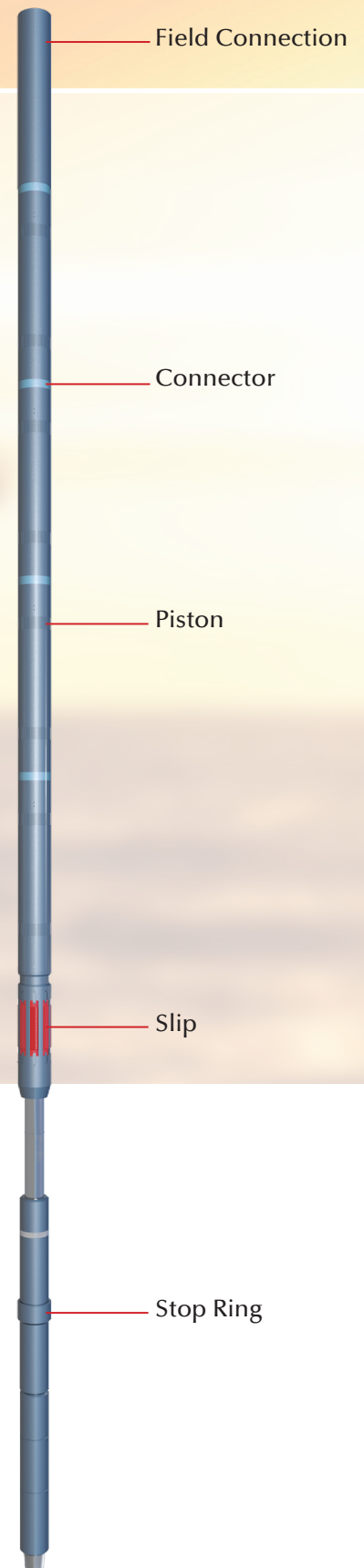
After the casing has been located and tagged, hydraulically-set, mechanically releasable slips anchor the CPT to the wall of the larger ID casing above. Pressure is applied to begin the upward movement of the fish. After the stroke is completed, the anchors are released. The power section can be reset and the anchor re-engaged as many times as required.

## Benefits

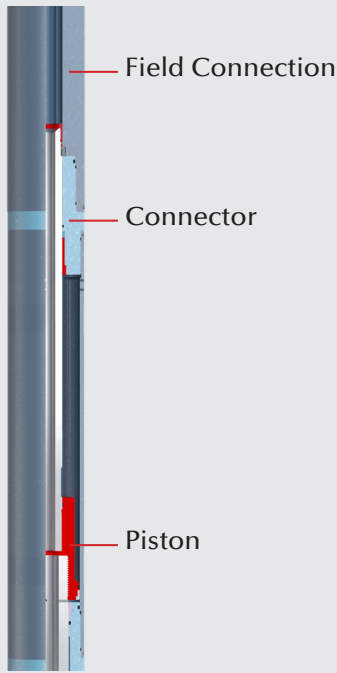
- Applies pulling loads at the fish, not at the surface
- Increases rig pulling capacity
- Mitigates damage to the work string and hoisting equipment due to tension loads or shock loads
- Quick rig up and rig down compared with surface systems

## CPT Components

- Multistage Hydraulic Power Section
- Anchor Section
- Field End Connection

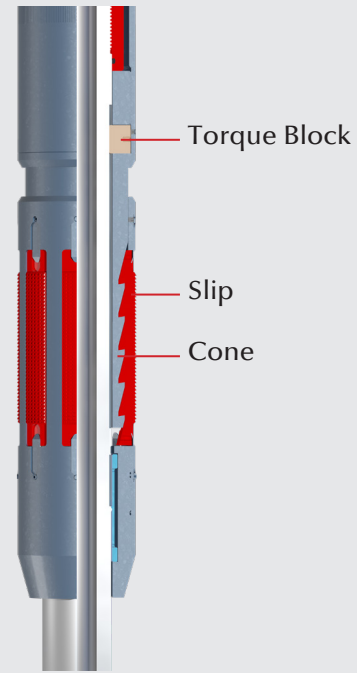


### Power Section



Multi-Piston Power Section provides a combined cross-sectional area that, when pressure is applied, generates the forces required to begin the upward movement of the fish.

### Anchor Section



The Anchor Section is activated with pressure on the power section, and the cones push the slips outward anchoring the CPT in place. After the stroke is completed, a straight pull upward on the power section releases the slips. The power section can then be reset and the anchor re-engaged.

### Casing Pulling Tool (CPT) Operational Data

Tool Size (in.)	Casing Size (in.)	Casing Weight (lb./ft.)	Piston Area (in. <sup>2</sup> )	Number of Piston Stages	Stroke (ft.)	Operational Output Pulling Power (lbs.)
4.440	5.5	15.5-23	36.875	5	3	Up to 240,000
5.750	7	20 - 35	86.83	7	2	Up to 530,000
	7.625	29.7 - 39				
8.125	9.625	46.1	159.07	7	2	Up to 800,000
		36				
		40 - 43.5				
11.250	13.375	72 - 92	303.34	5	3	Up to 1,520,000
	13.625	88.2				
	14	86 - 100				
	16	65 - 146				
	18.625	87.5 - 100.5				
	20	106.5 - 133				

Figures listed above reflect standard system configurations. Numerous factors must be considered to determine actual maximum pulling power for a given well application. Higher pulling forces may be achievable if required. Contact a TIW Representative for more details.