

**Innovative Completion Systems, Inc.**

# **Product Catalog**


## **Spring 2019**



**INNOVATIVE COMPLETION SYSTEMS, INC**

**Specializing in Mechanical Wireline Equipment**





Spring 2019 Product Catalog  
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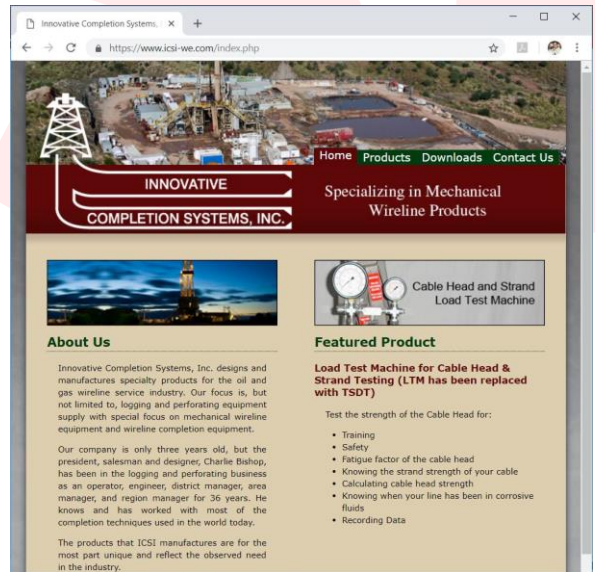


# A little about *ICSI*...

INNOVATIVE

COMPLETION SYSTEMS, INC.

Specializing in Mechanical Wireline Equipment



Visit us online @ [www.icsi-we.com](http://www.icsi-we.com)!

Innovative Completion Systems, Inc. designs and manufactures specialty products for the oil and gas wireline service industry. Our focus is, but not limited to, logging and perforating equipment with special focus on mechanical wireline equipment and wireline completion equipment.

Our company was founded in 2005. Charlie Bishop, our CEO and President, has been in the logging and perforating business for 46 years. He knows and has worked with most of the completion techniques used in the world today.

ICSI provides solutions to the wireline service industry with new, unique, and reliable products. We are constantly developing future products that will help improve service quality, safety, and operational efficiency.



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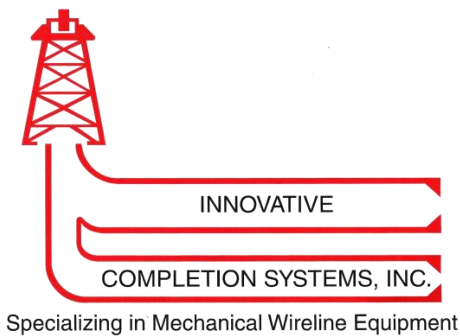
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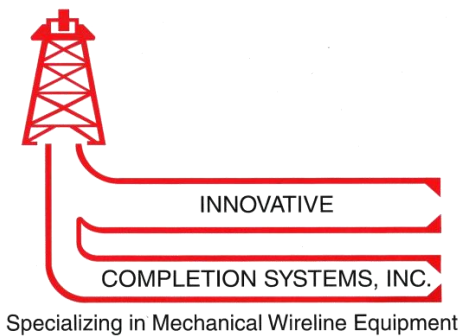
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# Addressable Disconnect Tool

The 2 3/4" OD Addressable Disconnect Tool (ADT) is run between the CCL and the quick change in the tool string. It is a ballistic tool, utilizing an explosive to execute a disconnect.

The Model CF ADT is used with ControlFire systems or with the ICSI Addressable Switch when using EB-style pressure switch systems. It will also accept any other type of addressable switch as long as it is not an integral part of the detonator. The Model CF ADT utilizes an A-105 detonator.

The Model DE ADT is used with the DynaEnergetics DynaSelect system, and utilizes a DynaEnergetics DynaSelect detonator.

The ADT can be lifted with any tool string that the CCL can be lifted with. A pickup sleeve is recommended for tool strings weighing more than 750 lbs or using more than 10' of over-the-line weight bars.

The ADT is pull tested to 28,000 lbs, with the weak point being at the Separation Collar. However, the tool is designed such that no weight or compression is on the Separation Collar when the tool is under hydrostatic pressure.

When the decision is made to disconnect, an addressable code is sent to the addressable switch and current is supplied to the detonator. The detonation shears the Release Assembly and severs the Hydrostatic Equalizing Plug, equalizing the tool and releasing the Fishing Neck.



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**Over 500 ADT's sold!**

**ADT Specifications...**

- OD: 2.75"
- Length: 35.5" for Model CF; 30.8" for Model DE
- Weight: 50 lbs for Model CF; 43 lbs for Model DE
- Pull tested to 28,000 lbs (in air)
- Pressure rated to 22,000 psi
- Rated for 350°F with ICSI Switch (347°F with ControlFire Switch)
- Standard 1-5/8" ACME connections at top and bottom of tool

**ICSI Addressable Panel**

**\*used ONLY with EB-style systems requiring the ICSI Addressable Switch.**

- Required to execute a disconnect when using the ICSI Addressable Switch with EB-style pressure switch systems. Until the switch is addressed with this panel, the detonator is shunted to ground.
- Can be used to monitor the status of a tool string when an ICSI Addressable Switch is being used and the string is at least 200' below surface.
- Addressable Panel is connected between firing panel and slip rings when decision is made to disconnect.



# ADT Test Monitoring Sub



A standard multimeter cannot be used to check through the ADT once the ICSI Addressable Switch has been introduced. The ADT Test Monitoring Sub threads onto a quick change body, which threads into the Quick Change Adapter at the bottom of the ADT. A dial at the bottom of the Sub is used to select a downhole situation to simulate, and the Monitoring Panel is used to verify the position of the dial through the ADT. This verifies functionality of the switch and checks the integrity of electrical insulation within the tool. LEDs on the side of the sub also allow the user to check negative (-) and positive (+) fire through the tool.

## ICSI Handheld Monitoring Panel

**\*used ONLY with EB-style systems requiring the ICSI Switch.**

- Certified by Franklin Laboratories as being safe to use with explosives (low voltage, low current).
- Allows user to check past the ICSI Addressable Switch to safely check through the tool string *ON SURFACE* or while in the well!
- Can be connected to ADT directly with alligator clip lead (included) or can be connected to AUX port inside shooting cab with BNC cable (included).
- Has different audible tones and lights to indicate status of tool string (Open, Short, Both Diodes present [Firing Head], Neg or Pos Diode [lowest detectable EB switch in string]).
- Requires 4x AAA batteries (included).



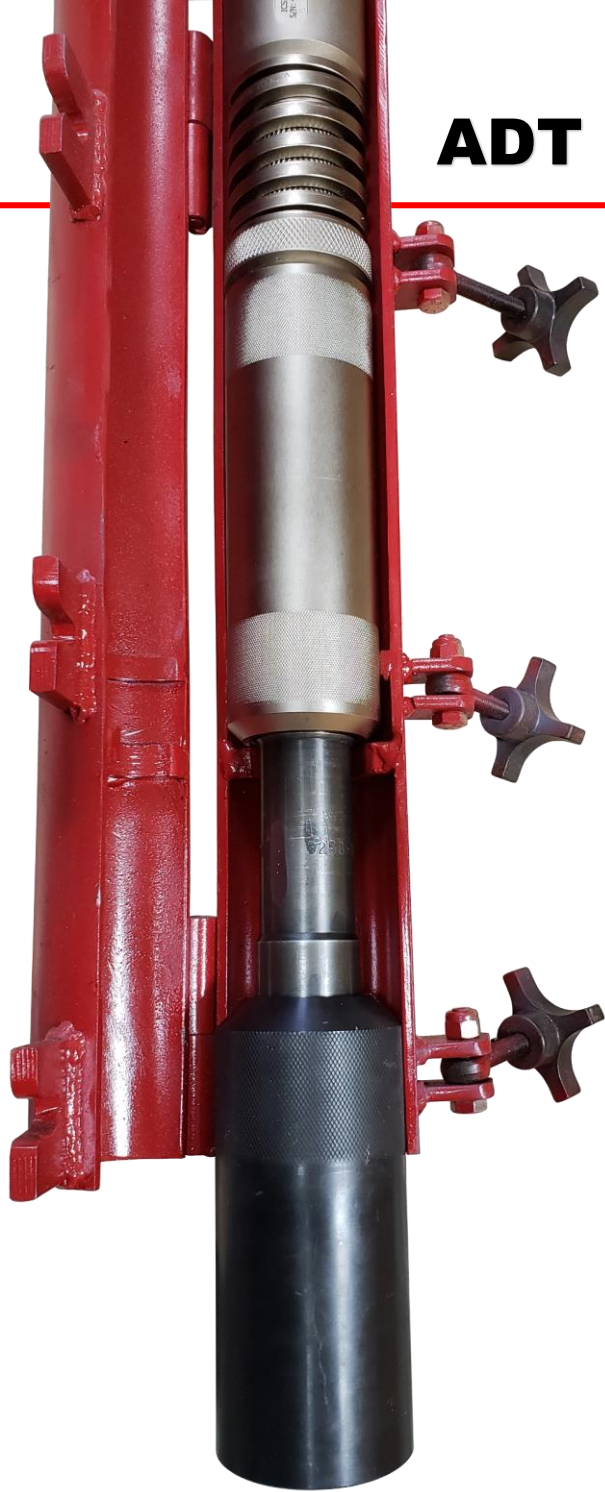
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# ADT Pickup Sleeve

A *must-have* when the ICSI Addressable Disconnect Tool (ADT) is being used on a tool string...

- ***weighing greater than 750 lbs and/or***
- ***requiring more than 10' of over-the-line weight bars.***

The ICSI ADT Pickup Sleeve is designed to help mitigate the damaging effects of flex caused when picking up long and/or heavy tool strings. The sleeve is designed not only to protect against flex in the ADT Fishing Neck, but also in the quick change! The ID is stepped down to 2.75" where it covers the ADT, then down even further to fit snug around the body of the quick change. Then, the bottom of the Pickup Sleeve opens up to a 3.125" ID to fit snug on the spinning collar of a standard 3-1/8" quick change.



# SR Model Addressable Disconnect Tool

The Model SR ADT is the latest addition to ICSI's family of Addressable Disconnect Tools. This tool uses the same tried-and-true releasing mechanism as previous models, but incorporates some exciting new features:

- The overall makeup length of the tool is only 25 inches!
- The Model SR ADT utilizes a shorter Fishing Neck than other ADT models, eliminating the exposed 2" portion of the tool and the associated flex point! With the Model SR ADT, *no pickup sleeve is required!* The SR-ADT can be lifted with any tool string that the CCL can be lifted with!
- Connections between the Fishing Neck and Actuator have been reinforced, making inner components more resistant to damage caused by operators attempting to tighten through the tool!
- The Hydrostatic Equalizing Plug (HEP) no longer has to be removed from the Coupling Sleeve to change out detonators, greatly reducing the likelihood of clipping the o'ring on the HEP and flooding the tool.
- Detonator swaps are now incredibly *quick* and *simple!* Slide the old Detonator Cartridge out of the Actuator and slide the new Detonator Cartridge in... *THAT'S IT!*
- The addressable switch being used is not tampered with when swapping out detonators. This keeps wiring issues to a minimum, and allows end users to get the maximum usable life out of their switches.
- The Quick Change Adapter (QCA) is shorter than in previous models, with no internal electrical contacts, eliminating one more possible location for electrical shorts!

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Thanks to our Detonator Cartridge System (*patent pending*), detonator swaps are now incredibly *quick* and *simple*! The CCL Adapter (CCLA) is unthreaded from the Actuator, the old Detonator Cartridge is slid out of the Actuator, the new Detonator Cartridge is slid into the Actuator, and the CCLA is again threaded into the Actuator... *THAT'S IT!* The Detonator Cartridges themselves can be reused many times. This allows the engineers on location to work ahead, replacing the detonators in the Cartridges before they are needed. The loaded Cartridges can then be stored safely with our Shunt Circuit Harness installed.

The Model SR ADT can be used with any select-fire perforating system. It will accept any type of presently known addressable switch. The Model SR ADT utilizes an A-105 detonator. When being used with DynaEnergetics DynaSelect and DynaStage systems, the SR-ADT utilizes a special DE Cartridge to house DynaEnergetics detonators.

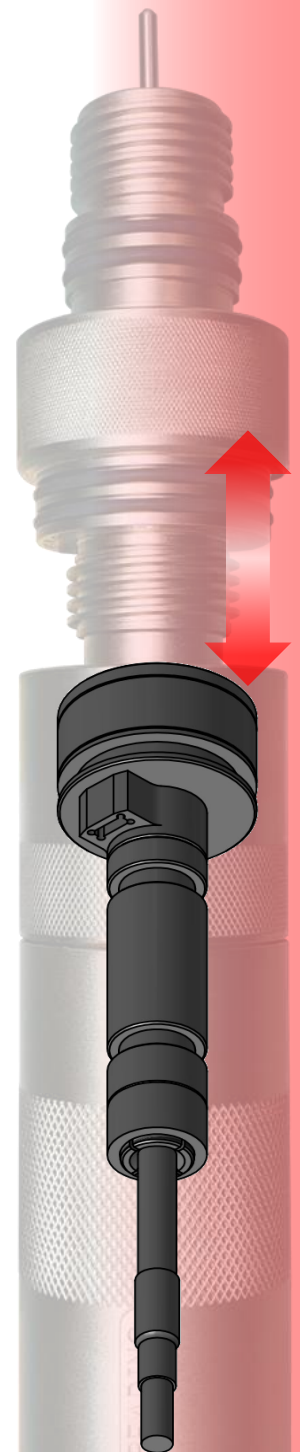
The ADT is pull tested to 28,000 lbs, with the weak point being at the Separation Collar. However, the tool is designed such that no weight or compression is on the Separation Collar when the tool is under hydrostatic pressure.

### SR-ADT Specifications...

- OD: 2.75"
- Length: 25"
- Weight: 40 lbs
- Pull tested to 28,000 lbs (in air)
- Pressure rated to 22,000 psi
- Temperature rating is determined by the addressable switch being used.

#### **NOTE to EB-style gun system users:**

The Model SR ADT cannot currently be adapted to run with EB-style systems. The Model CF ADT (*page 1*) must be run with ICSI's Addressable Switch to accommodate EB-style systems. However, components from the Model SR ADT can be used on the Model CF ADT to make the tool shorter and more rugged.



## 2" Addressable Disconnect Tool



The 2" OD Addressable Disconnect Tool (ADT) is run below the CCL in the tool string. It is a ballistic tool, utilizing an explosive to execute a disconnect.

The Model CF ADT is used with ControlFire systems or with the ICSI Addressable Switch when using EB-style pressure switch systems. It will also accept any other type of addressable switch as long as it is not an integral part of the detonator. The Model CF ADT utilizes an A-105 detonator.

The Model DE ADT is used with the DynaEnergetics DynaSelect system, and utilizes a DynaEnergetics DynaSelect detonator.

The ADT can be lifted with any tool string that the CCL can be lifted with. A tool string weighing up to 500 lbs can be lifted from the ground without the use of a pickup sleeve. An optional tube can be run over the small OD of the Fishing Neck to mitigate flex in heavy tool strings.

The ADT is pull rated to 18,000 lbs, with the weak point being at the Separation Collar. However, the tool is designed such that no weight or compression is on the Separation Collar when the tool is under hydrostatic pressure.

When the decision is made to disconnect, an addressable code is sent to the addressable switch and current is supplied to the detonator. The detonation shears the Release Assembly and severs the Hydrostatic Equalizing Plug, equalizing the tool and releasing the Fishing Neck.

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## 2" ADT Specifications...

- OD: 2.00"
- Length: 26.9" for Model CF; 22.2" for Model DE
- Weight: 18 lbs for Model CF; 16 lbs for Model DE
- Pull rated at 18,000 lbs (in air)
- Pressure rated to 20,000 psi
- Rated for 350°F with ICSI Switch  
(347°F with ControlFire Switch)
- Standard 1-3/16"-12 threaded connections (same as Cable Head) at top and bottom of tool

## ICSI Addressable Switch

On ICSI Disconnect Tools (excluding DE Models), the ICSI Addressable Switch allows the user to run Disconnect Tools with EB-style pressure switch systems. For users who are running a Titan ControlFire system, a ControlFire switch can be easily wired into a blank ICSI Switch Cradle.

ICSI Switch Cradle with ICSI Addressable Switch



ICSI Switch Cradle with ControlFire Switch installed  
*(ControlFire switch not included)*

# Hydraulically Actuated Addressable Disconnect Tool

The 2 3/4" OD Hydraulic Addressable Disconnect Tool —Non-Ballistic (HADT-NB) is run between the CCL and the Quick Change in the tool string.

This is a non-ballistic tool. No explosives are required, eliminating explosives safety issues and explosives compliance issues.

The HADT-NB is used with ControlFire System, or with the ICSI Addressable Switch when running an EB-style pressure switch system. It will also accept any other type of addressable switch as long as it is not an integral part of the detonator.

When the decision is made to disconnect, an addressable code is sent to the addressable switch. Current is supplied to the tool, which is then separated using hydrostatic pressure. The Fishing Neck that is attached to the Fish is released.

The HADT-NB needs no Shock Sub and can take any shock the CCL can handle. The HADT-NB can be lifted with any tool string that the CCL can be lifted with. A pickup sleeve is recommended for tool strings in excess of 750 lbs. or when more than 10' of over-the-line bars are run.

*\*Length and appearance of equipment subject to change as development progresses.*

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## HADT-NB Specifications

- OD: 2.75"
- Pull Rating: 22,000 lbs.
- Pressure Rating: 20,000 psi.
- Temperature Rating: Based on Addressable Switch (ICSI Addressable Switch is rated for 350°F)



## Servicing and Maintenance

The Hydraulic Addressable Disconnect Tool — Non-Ballistic (HADT-NB) requires a pressure test prior to field operations. Other than changing the Switch out at the manufacturer's recommended interval, there is no other field service required.

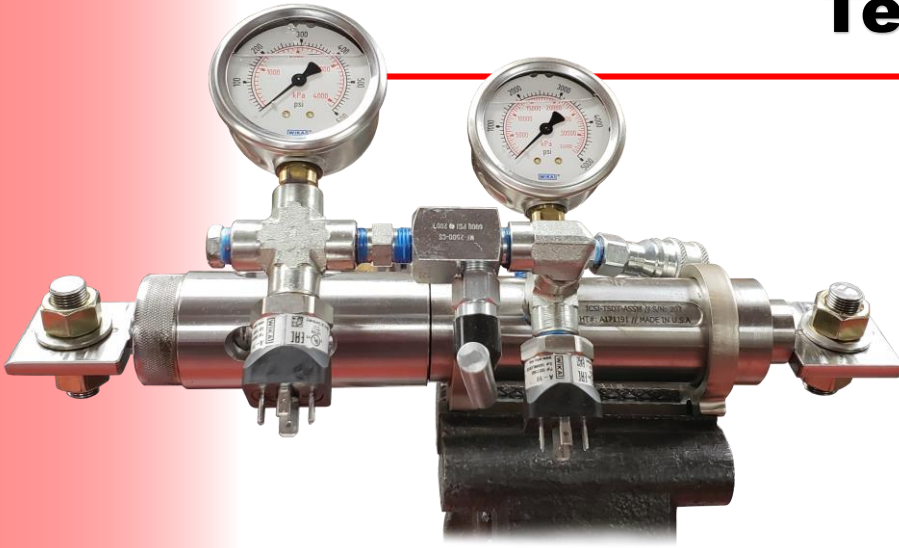
The Hydraulic Addressable Disconnect Tool — Non-Ballistic (HADT-NB) is returned to ICSI after 100 runs for Maintenance.

*Return to ICSI for maintenance!*



*Lease options available!*

# Tensile Strength and Ductility Testing Tool



*TSDT when set up to perform wireline strand pull tests (radius or straight pull) or to perform wrap tests or torsion tests (for checking line ductility).*

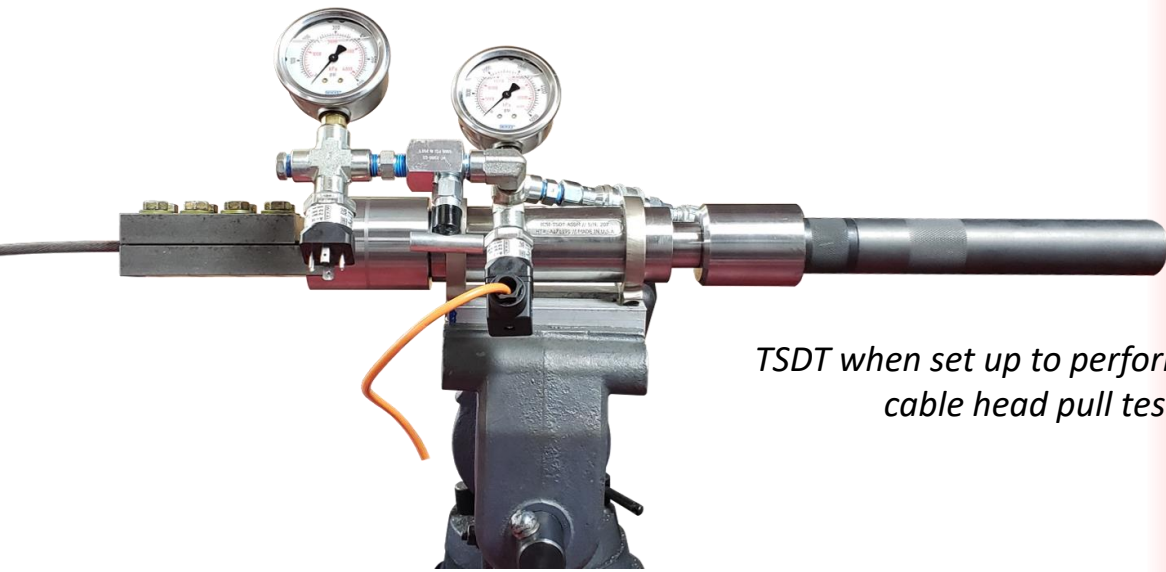
The Tensile Strength and Ductility Testing Tool (TSDT) is a must-have for every wireline shop looking to ensure the quality of their wireline, protect themselves from the costly dangers of corrosive well-bore environments, and ensure quality training of hands responsible for performing reheads. And now, this device can also be used to perform quick and easy line tension calibrations on perforator measuring heads!

If a spool of wireline is damaged on a job, and the fault belongs to any company other than the wireline service company, the company at fault may require *proof* that they damaged the line before paying for the line. The TSDT package makes it possible to provide quantitative data that tracks the integrity of the line. Not only are gauges easily visible on the machine, but measurements from the built-in transducers are recorded and plotted on a chart via the Owl Data Logger and ACR Trendreader Software that comes included with the TSDT package.

Make the TSDT a part of your safety program and never have to *GUESS* the integrity of your line or your reheads again!



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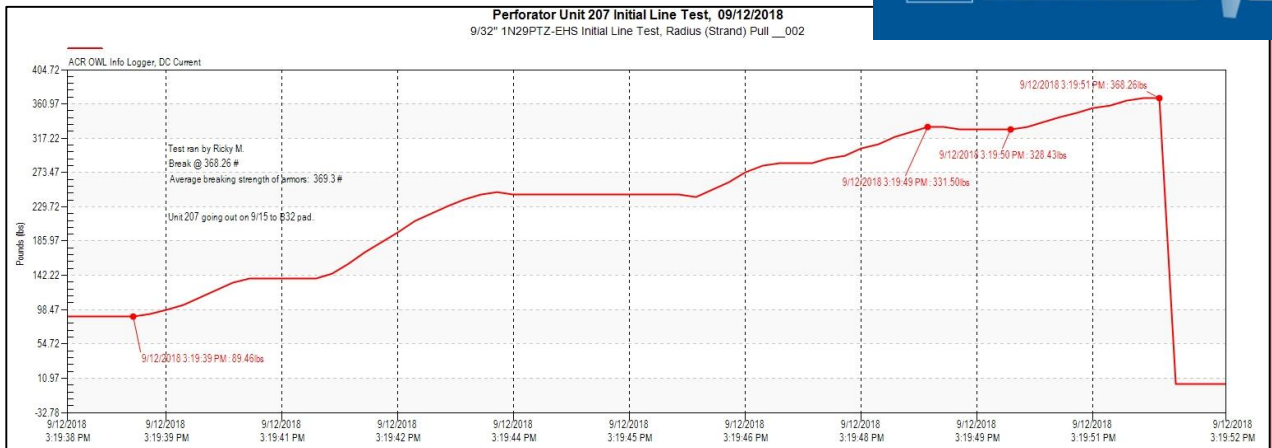


*TSDT when set up to perform cable head pull tests*

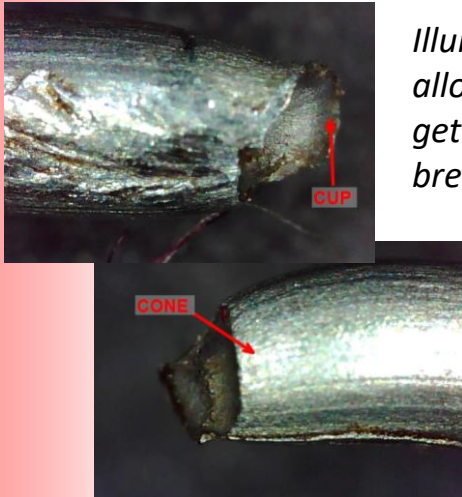
The Tensile Strength and Ductility Testing Tool (TSDT) comes in a compact package that can be used to quickly perform any of the following:

- Strand Tensile Strength Pull Test (Radius Pull or Straight Pull)
- Wrap Test
- Torsion Test
- Cable Head Pull Test
- Weight Indicator Calibration (with additional weight cal device)

*Chart plotted by Owl Data Logger and ACR TrendReader Software that can be stored for later reference. Note that the graph can be edited, data points labeled, and comments added to accommodate the needs of the end user.*



# Tensile Strength and Ductility Testing Tool *(cont...)*



*Illuminated Microscope (included with TSDT) allows user to check ductility of wireline by getting an upclose view of the two sides of the break after a strand pull test.*

*Where will **YOUR** line break?*

## Suitable for...

- ...Slickline
- ...Braided Line
- ...Electric Line

The Tensile Strength and Ductility Testing Tool (TSDT) comes in a compact, mobile package that can easily be moved around the shop or quickly taken to location in case of a line emergency.

## **TSDT Package includes:**

- Pelican cases
- Power box
- Cable Head Adapter
- Line Clamp Adapter
- ACR Trendreader Software
- Owl Model 500 Data Logger
- Light Wand USB Cable
- Illuminated Microscope



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# Measuring Head Weight Calibration Device

Weight Calibration made *FAST* and *EASY*!  
TSDT sold separately (*required*).

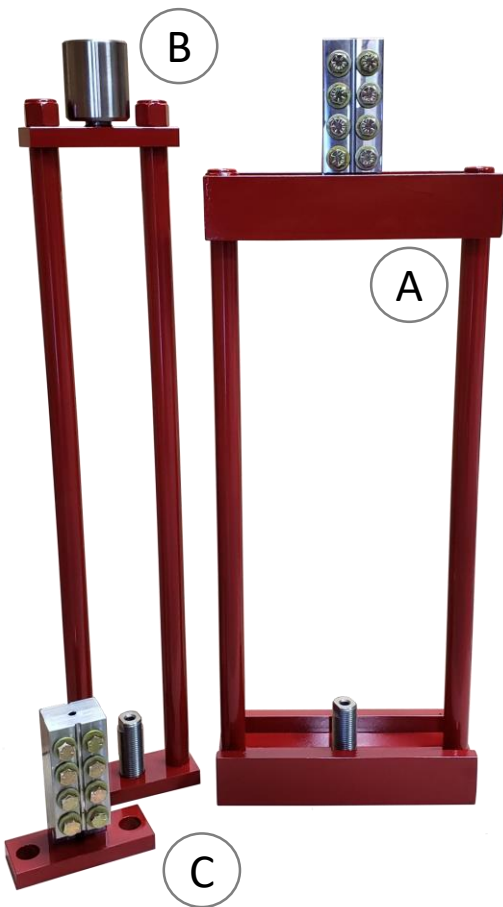


The Measuring Head Weight Calibration Device works with the Tensile Strength and Ductility Tester (TSDT) to allow its user to calibrate a weight indicator in less than 15 minutes, all from the back of the truck! No more extensive setup, hooking up sheaves and known weights and taking up large amounts of space for long periods of time... With this innovative system, simply use a hydraulic hand pump to apply pressure between the line clamps of the TSDT and Weight Cal Device, and adjust your weight indicator to match the value returned by the data logger supplied with your TSDT.

**A:** Benchmark Weight Cal Device

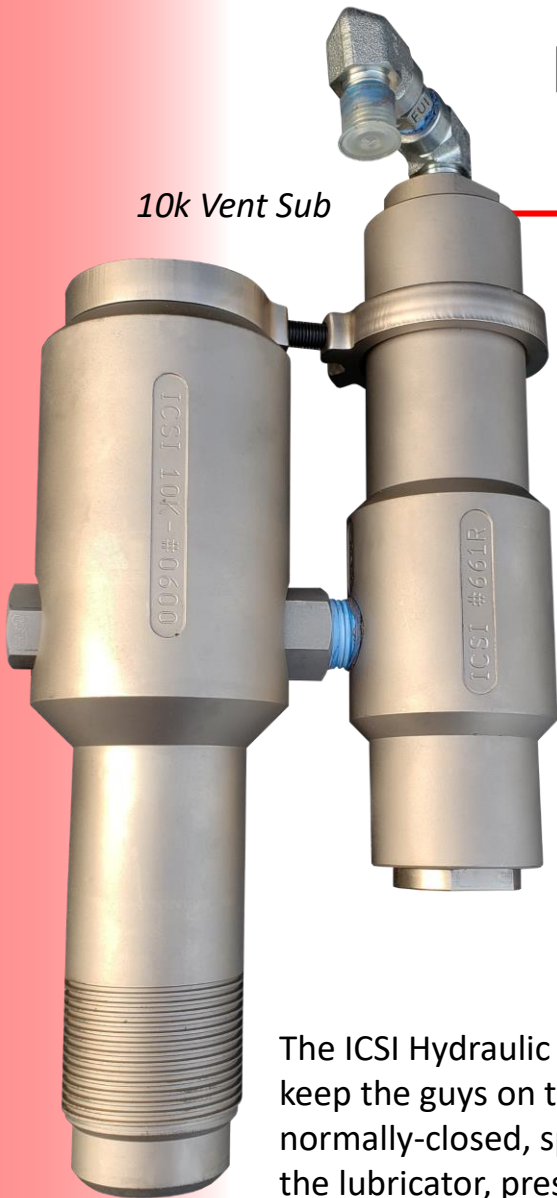
**B:** GeoLog Weight Cal Device; *requires a rehead at the end of the line to provide a stop. Cable Head Adapter is included with the purchase of a TSDT (not included with Weight Cal Device).*

**C:** GeoLog Line Clamp Adapter: allows a weight cal to be performed without requiring a rehead.



# Hydraulic Remotely Actuated Vent Sub

10k Vent Sub



The Hydraulic Remotely Actuated Upper Lubricator Vent / Injection Valve's primary purpose is to vent air or gas from the top of a lubricator before pressure testing the lubricator. Utilization of a vent sub allows the air to be vented through a larger opening than is available through the grease head flow tubes, which protects against extreme temperatures (adiabatic heating) that would otherwise cut the wireline armors or melt the insulation around the conductor wire.



The ICSI Hydraulic Remotely Actuated Vent Sub was built to keep the guys on the ground safe. The Vent Sub houses a normally-closed, spring-loaded valve. When voiding air from the lubricator, pressure is applied to the sub via a hydraulic hand pump, keeping the Vent open. Once all air has been removed from the lubricator, the pressure is relieved from the hand pump, and the Vent Sub closes.

This functionality isolates well pressure at the grease head rather than leaving a pressurized hose lying on the ground or in a tote for the duration of the wireline run. This extends the life of hoses and eliminates one more safety hazard on the ground.



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The Hydraulic Remotely Actuated Vent Sub can be set up as an injection valve, allowing the injection of methanol or glycol during winter months to prevent freezing up or to try to clear up an already-frozen lubricator.

The assembly adds very little length or weight to the grease head. It is also a relatively low maintenance, simple design with few moving parts.

The Vent/Injection Valve is available for 5k, 10k, and 15k service. The Valve Seat is field replaceable on all new Vent Subs.

*The ICSI Hydraulic Remotely Actuated Vent Sub, incorporated into a standard grease head.*



## Debris Retarders

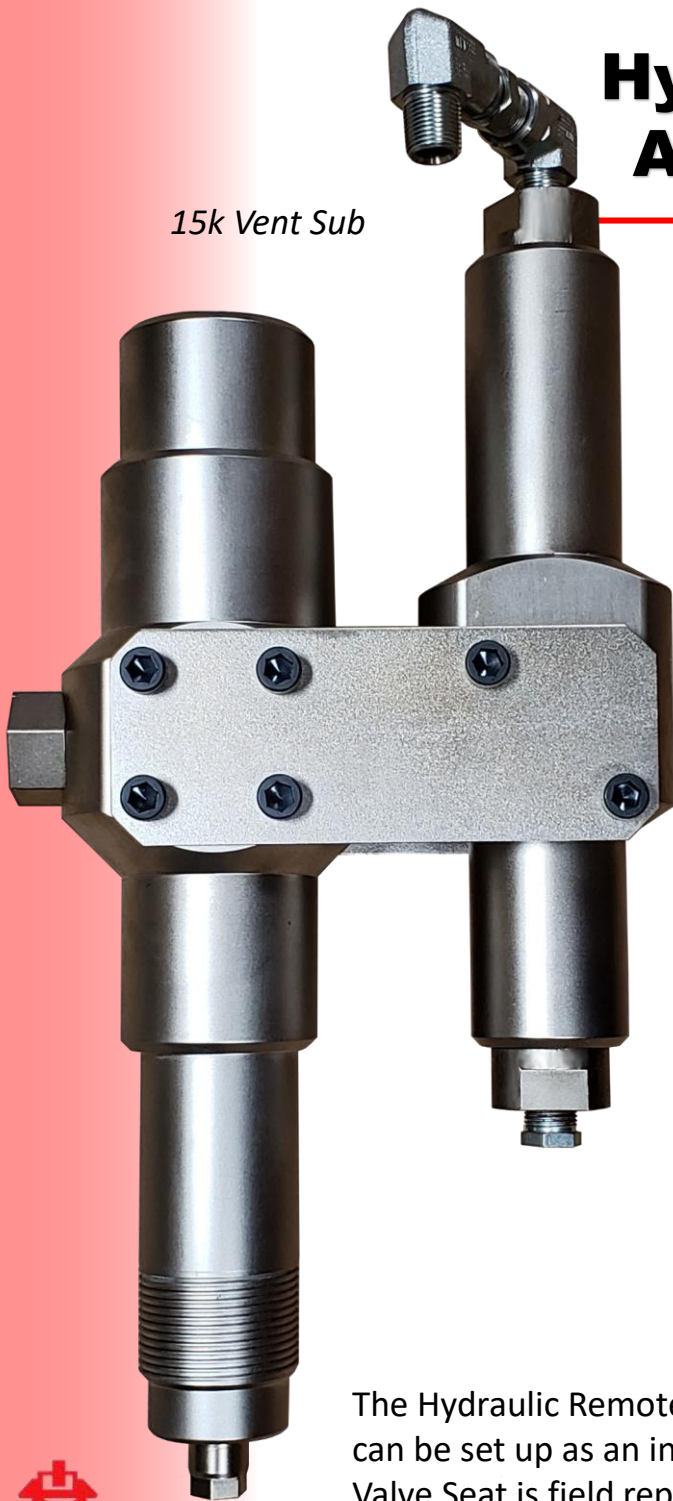


*Debris Retarders*

All ICSI Hydraulic Remotely Actuated Vent Subs now being built feature an interchangeable Debris Retarder insert that helps keep larger debris from making its way into the Vent Sub. This feature reduces the amount of maintenance required on the Vent. Debris Retarder inserts are available in a variety of sizes to accommodate the size of wireline being ran. Any Vent Subs that have been purchased from ICSI may be modified to accept these inserts. Ask your ICSI representative for details.

# Hydraulic Remotely Actuated Vent Sub

15k Vent Sub



The design of the 15k Hydraulic Remotely Actuated Vent Sub is very similar to the 10k version, but with a couple major differences. Like the 10k Vent, the 15k Vent Sub houses a normally closed valve. When voiding air from the lubricator, pressure is applied to the sub via a hydraulic hand pump, keeping the Vent open. Once all air has been removed from the lubricator, the pressure is relieved from the hand pump, and the Vent Sub closes.

In addition to the overall construction being stronger to handle higher well pressures, the 15k Vent Sub features an Emergency Valve Closing Port. With this feature, an additional hose can be run to the Vent, and pressure applied with a hydraulic hand pump to force the Vent valve closed. If a valve is forced closed, the valve cone and seat may need to be replaced.

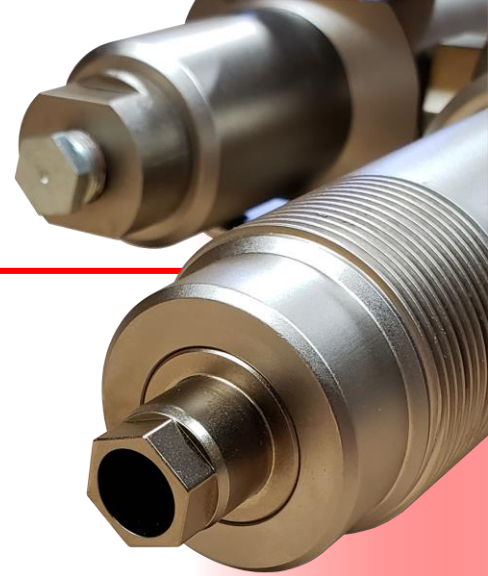
The Hydraulic Remotely Actuated Vent Sub can be set up as an injection valve. The Valve Seat is field replaceable on all new Vent Subs.



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Valve  
opening port



The 15k Hydraulic Remotely Actuated Vent Sub also features an interchangeable Debris Retarder insert that helps keep larger debris from making its way into the Vent Sub. This feature reduces the amount of maintenance required on the Vent. Debris Retarder inserts are available in a variety of sizes to accommodate the size of wireline being run.

Valve  
emergency  
close port

*\*3/8 hydraulic quick  
connect fittings not  
included.*



*Debris Retarders*

*Grease Head Adapter  
with Debris Retarder.*

# Over-the-Line Knuckle Joint



The Over-the-Line (Thread-Through) Knuckle Joint can be placed between multiple over-the-line weight bars or in between the ICSI Pump Off Prevention System and an over-the-line weight bar.

The purpose of these Knuckle Joints is to make the tool string more flexible. This helps to relieve the stress applied to the Addressable Disconnect Tool, aiding in the proper function of the ADT during a release. Knuckle Joints also relieve some of the stress on the wireline where it enters the cable head, which can be especially problematic when picking up and laying down large, heavy tool strings.

Many knuckle joints utilize insulated electrical contacts, which can cause serious issues with prolonged use. The ICSI Over-the-Line Knuckle Joint eliminates these issues, as it does not require any electrical connections.



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The Over-the-Line Knuckle Joint is available with either 2" ACME connections or with 1-5/8" ACME connections.

The Over-the-Line Knuckle Joint has a maximum deflection of 8 degrees and can handle 10,000 lb. side loads.

### Specifications

- Pull Rating: 50,000 lbs.
- Side Load Rating: 10,000 lbs.
- OD: 2.75"
- Length: 11.33" for 2" ACME  
10.44" for 1-5/8" ACME
- Maximum Bend Angle: 8 Degrees
- Connections: 2" or 1-5/8" ACME

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# Tensile Screw Weak Point Sub



The Tensile Screw Weak Point Sub provides a predictable, consistent, reliable mechanical weak point.

The Tensile Screw Weak Point Sub replaces the contact (teardrop) sub on a standard Titan cable head. The Tensile Screw Weak Point Sub can be adapted to any rope socket.

The Tensile Screw Weak Point Sub can prove especially helpful when running jacketed wireline, which does not lend itself to conventional rope socket weak point construction.

There are twelve holes for the tensile screws. The tensile screws each part at 425 lbs tension. Simply add the number of screws to achieve the pullout strength desired. Tensile screws can be added, removed, or replaced without disassembling the cable head.

Repeated pulls to 80% of the breaking strength do not result in a reduction in the breaking strength of the weak point.



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A key in the main body of the Tensile Screw Weak Point Sub prevents the two parts from turning with respect to one another. This ensures that the Tensile Screws cannot be sheared by torque.

A washer is run at the teardrop end of the sub that will strip the tape or boot from the teardrop when the weak point separates. This washer ensures that a short can be seen in the line, even when the Tensile Screw Weak Point Sub is run with the Pump Off Prevention System.

In the event that the weak point must be separated, the ICSI Weak Point Sub maintains an inner seal, so that the CCL is not flooded.

# Pump Off Prevention System

The Pump Off Prevention System is designed to prevent tool strings from being lost as a result of being pumped off of the line during plug and perf operations.

The POP System consists of the Tensile Screw Weak Point Sub attached to the cable head, and a Pump Off Prevention Tool attached to the top of the Shooting CCL. The rope socket in the cable head would be made up at full strength. The Tensile Screw Weak Point would be set at a normal pullout strength.

In the event that the Tensile Screw Weak Point fails due to excessive pump rate, the Pump Off Prevention Tool would catch the cable head. Thus, the tool string would not be lost, avoiding an expensive fishing job.

The Pump Off Prevention Tool incorporates a disconnect function should the tool string become stuck. After pulling on the cable head with sufficient force to separate the Tensile Screw Weak Point Sub, the Pump Off Prevention System will be activated. Repeatedly pulling tension and then relaxing the line will cause the POP Tool to separate in half. The top of the tool string can then be pulled from the well, leaving a clean fish.

*\*Length and appearance of equipment subject to change as development progresses.*

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The Pump Off Prevention System covers the cable head. A standard 2" fishing neck, or over-the-line weight bars and a 2" fishing neck, are run above the Pump Off Prevention System.

**Specifications**

- OD: 2 3/4"
- Pull Rating: 80,000 lbs.
- Tensile Screw Rating: 425 lbs. each



*Tensile Screw  
Weak Point Sub*

*Questions? Contact a member of our sales team:*

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# True Cable Head Tension Tool

The True Cable Head Tension Tool provides feedback to let its user know how much tension is being pulled at the cable head, aiding in accidental pullout prevention and also allowing its user to know how much tension can actually be pulled in deep wells.

The ICSI TCT provides tension measurement and an active CCL for depth control while logging through Warrior. A Hunting-Titan 2-3/4" passive shooting CCL mates to the bottom of the True Cable Head Tension Tool to provide depth control for perforating operations.

The cable head is threaded into the 1-3/16"-12 GO Box connection at the top of the tool. An over-the-line weight bar, fishing neck, or POP tool is threaded onto the 2"-6 ACME male threads at the top of the tool.

The True Cable Head Tension Tool is made from titanium to minimize the impact of thermal expansion compensation. The TCT is compatible with all addressable switch systems, and is also compatible with the EB-style perforating systems. The TCT can be run above the ICSI Addressable Disconnect Tool.

*ICSI Downhole Tension Tool, without Cable Head, Fishing Neck, or Passive Shooting CCL attached.*

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## *Lease options available!*

The Warrior service has an automatic voltage cut out of 37 volts and a current cut out of 70 milliamps. The Tool requires 28 volts (typical top of tool voltage) and around 48 milliamps powered through the Warrior Interface Panel. If running a Warrior panel, no additional panels are required to run the True Cable Head Tension Tool.

### **Specifications**

- Pull Rating: 60,000 lbs
- Temperature Rating: 400°F
- Pressure Rating: 20,000 psi
- Measurement Range: -1,000 lbs to 5,000 lbs

*ICSI True Cable Head Tension Tool, with Fishing Neck and Passive Shooting CCL attached.*

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# Model “B” Mechanical Head Catch



In the event that too much tension is pulled on the tool string while in the lubricator, the Model “B” Mechanical Head Catch will latch on to the fishing neck at the top of the string. If the wireline is pulled out of rope socket, the Head Catch will hold onto the fishing neck in the lubricator instead of letting the tool string fall down into the well.

- Mounts in the bottom of the greasehead union
- Uses stainless steel tensile screws to determine latch point of the head
- Tensile screws can be added or deleted at 390 lbs each to calculate latch point.
- Damper spring can exert 750 lbs of force to slow upward movement of the tool string.



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# Wireline “T” Clamps

- Has dual grooves that will fit a combination of lines
- Will fit into most tubing elevators
- Three attachment points for clevises
- Reversible feature
- “T” clamp is offered in combinations of 7/32, 9/32, and 5/16 line-sized grooves. However, any combination can be ordered.
- Alignment pins align your cable to the groove to aid in not crushing the wireline.



# Goose Neck



- Prevents cable from being weakened or shorted when lifting or laying down tool string
- Light weight aluminum Goose Neck allows for more stability when overhead.
- The G.N. comes in two sizes: one size to fit a 2" fishing neck and one to fit a 1-11/16 or smaller cable head

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# Perforating Gun Punch

In the event that a tool string malfunction results in a pressurized perforating gun barrel being removed from the well, this hydraulically actuated punch can be used to puncture through a scallop on the barrel to relieve the pressure remotely, from a safe distance.

- Features an adjustable preset stroke that can be set to not punch into the charge.
- This device can be put on a gun string without removing fishing equipment or setting equipment.
- Standard size is 3-1/8, but inserts can be used to adjust for smaller guns.



# Straight Pull Cable Head

- Wire is not bent over a radius at the cone, increasing the number of runs on the cable head before the fatigue of the head.
- More reliable pullouts
- Quick and simple to rehead
- Same O.D. and length as most competitors' heads
- Inner wires will "count" and will not slip or break prematurely.



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# 1" Straight Pull Cable Head

Same strength in a smaller package:

The 1" Straight Pull Cable Head has basically the same internal parts as does 1-7/16" S. P. Cable Head with two exceptions. The 1" model utilizes a Compression Bolt in place of a Bonnet. Also, a Coupling Adaptor is used to couple the Barrel to the Fishing Neck by threading the Adaptor on to the Compression Stud. Therefore, the wire holding strength is the same between both models.



## 2 3/4" Electronic Conductor Swivel



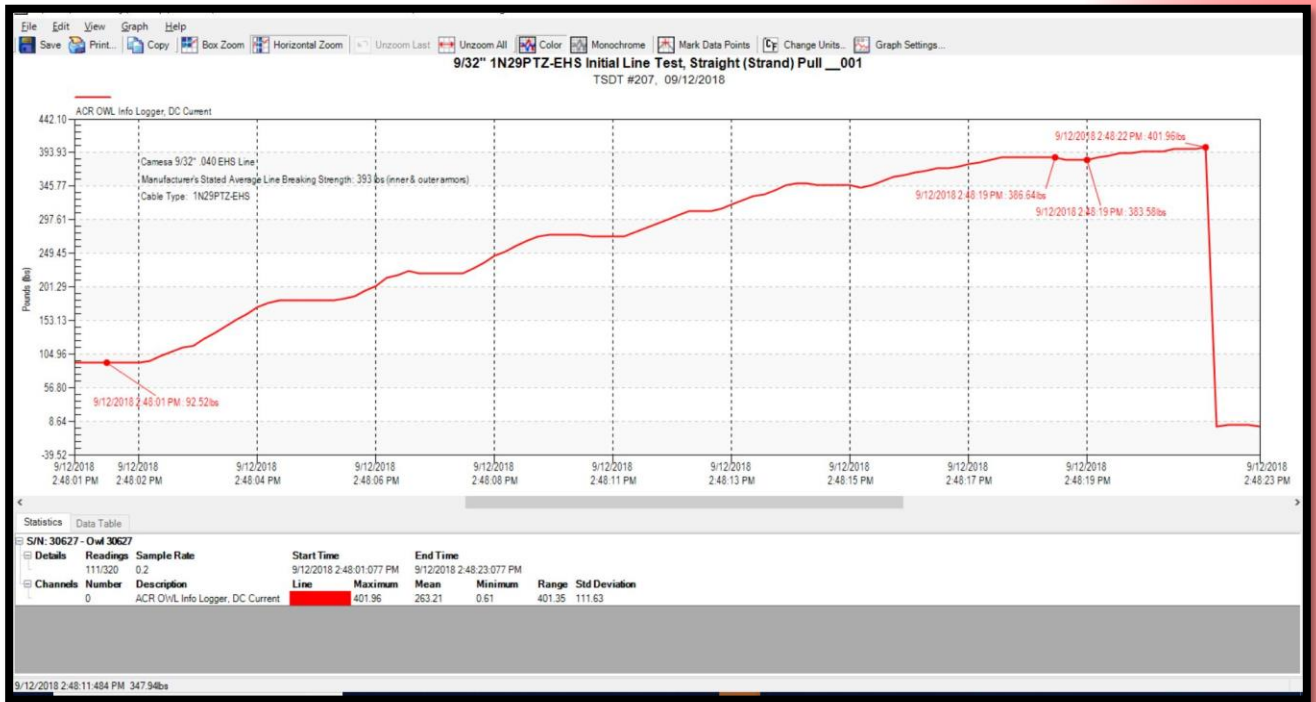
- Dual pressure balance chambers to insure no electrical leakage.
- Pressure balancing is achieved by use of pistons rather than rubber bellows.
- Features two separate swivel points
- Sand seals to insure rotation of the device
- Rugged construction of four bearing races
- Length: 18"



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# Wire Testing Service



ICSI's Wire Testing Service allows you to know the strength and ductility of your wireline. If you, for any reason, question the integrity of your line, simply send ICSI a sample piece of your wireline for testing. Contact your ICSI Representative for details.

- Test wireline for strength over a cone radius or a straight pull.
- Test wireline for fatigue.
- Test wireline for ductility.
- All data recorded and/or photographed.

# Wireline Vise Clamps

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Wireline Vise Clamps are available to accommodate any size of wireline. These clamps allow their users to manipulate and turn wireline that would otherwise be impossible to handle when the line is under torque stress, under tension, or greasy.



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