

Wireline Tool String

The Wireline Tool String is necessary for the efficient surface control during the running and pulling operations on slickline of sub surface controlled devices. An assembly of wireline tools connected to the wireline is used to deliver surface control impacts (jar action) either upwards or downwards to manipulate devices within the well bore.

A standard set of wireline tool string typically consist of:

- Wireline Socket (Rope Socket) for attaching the wireline to the tool string.
- Wireline Stem (Sinker Bar) for adding weight to sink the tool in the well bore against the well pressure and different gravity fluids encountered.
- Wireline Jars (Spang Link Jar) for securing the hammering effect by upward or downward movement.
- Wireline Knuckle Joint for obtaining flexibility through the tool string.
- Wireline running or pulling tool for running and retrieving devices from the well bore.

All Wireline Tools are available with following:

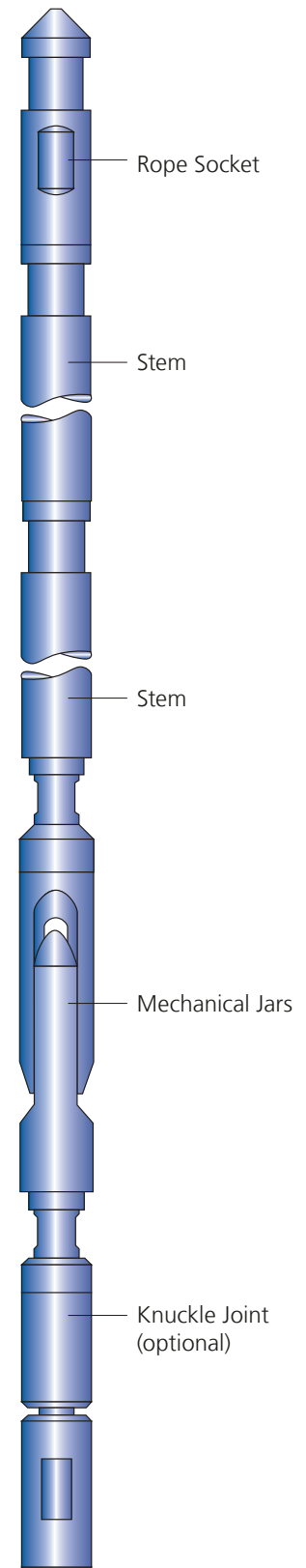
- Sucker Rod Threads
- UN Threads
- Quick Lock Connection

Customer to choose the type of connection they want to use in wireline tool string. Sucker rod threads are machined on wireline tools as per API 11B. These are economical cost wise.

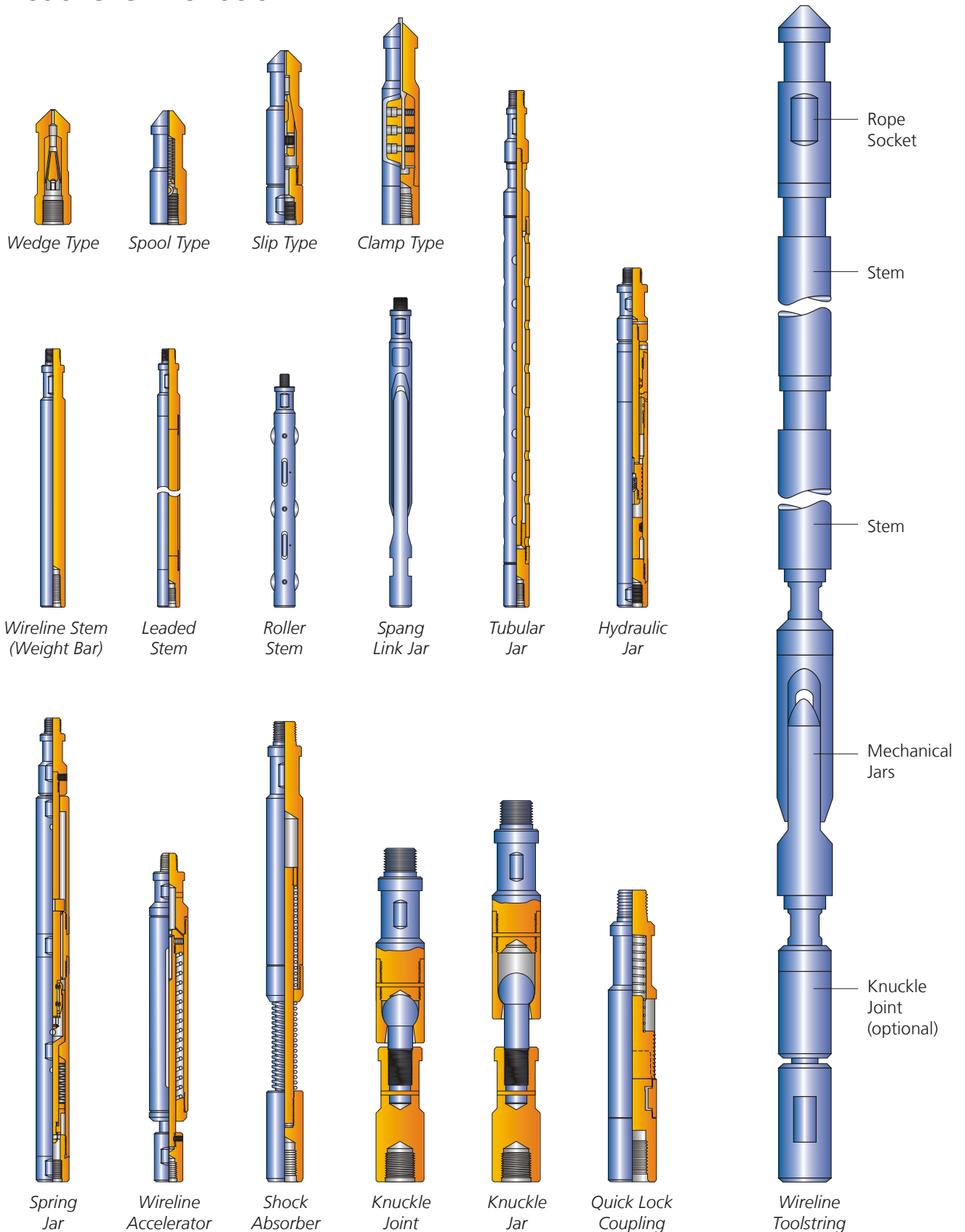
UN threads are also machined on wireline tools and are interchangeable with Sucker Rod Threads but are shorter in length. These are also economical cost wise.

Quick Lock Connector as the name suggest is a quick connect and quick disconnect connection, which is used in place of screwed connection. It has many advantages over screwed connection:

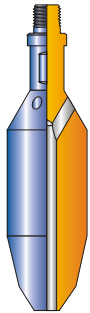
- It is quarter turn connection.
- It is stronger than screwed connection. It has three impact load bearing surfaces in each direction, which make it safer for heavy and prolonged wireline operations.
- It is safer and simpler and can be released with a screwdriver.



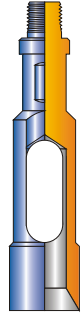
List of Slickline Tools



List of Slickline Tools



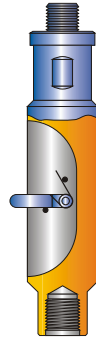
Tubing Swage



*Tubing Gauge/
Paraffin Cutter*



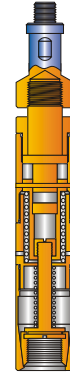
*Blind
Box*



*Tubing End
Locator*



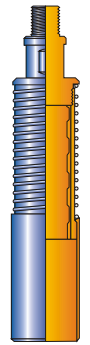
*Wireline
Overshot*



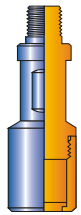
*Releasable
Overshot*



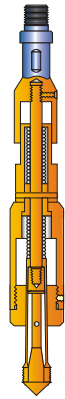
*Impression
Block*



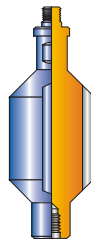
*Magnetic
Fishing Tool*



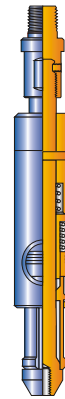
*Wireline Fishing
Magnet*



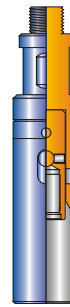
*Wireline
Spear*



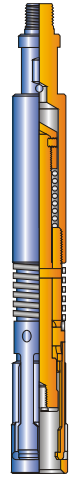
*Fluted
Centralizer*



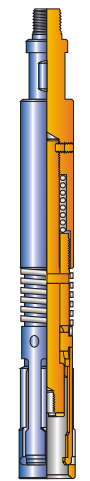
*GS Pulling
Tool*



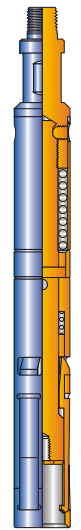
*GU Shear up
Adapter*



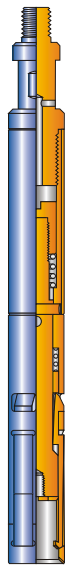
*JD Pulling
Tool*



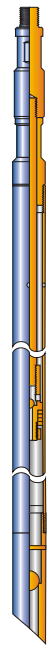
*JU Pulling
Tool*



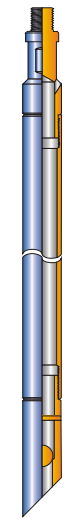
*R Pulling
Tool*



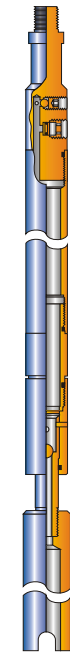
*S Pulling
Tool*



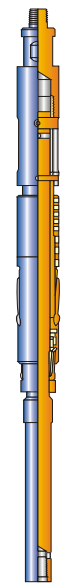
*Sand Pump
Bailer*



*Sample
Bailer*

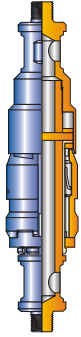


*Hydrostatic
Bailer*

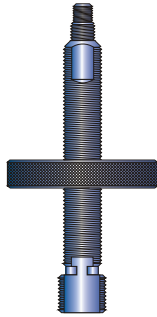


*PX Running
Tool*

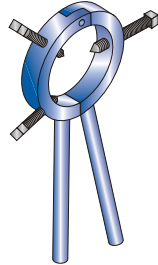
List of Slickline Tools



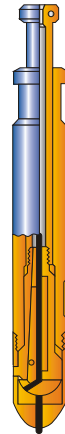
B Shifting Tool



Pinning Tool



Releasing Tool



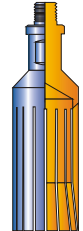
Wireline Cutter



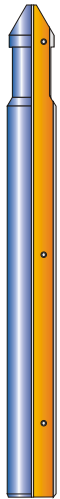
Wireline Snipper



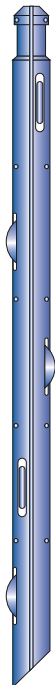
Tubing Broach



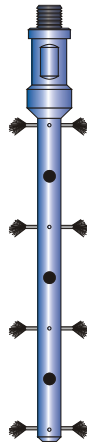
Wireline Wirefinder



Go-devil Flat Bottom



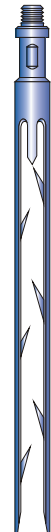
Roller Go-devil



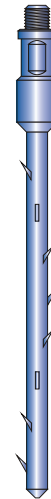
Wire Scratcher (Flare Type)



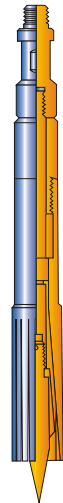
Wire Scratcher



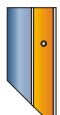
Wireline Grab



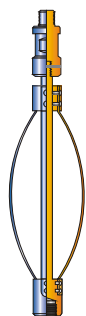
Center Spear



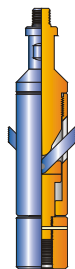
Wireline Retriever



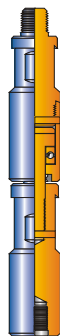
Go-devil 25° Angled Bottom



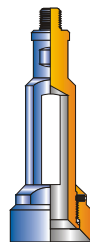
Bow Spring Centralizer



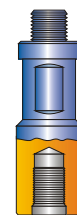
Anti Blow-up Tool



Wireline Swivel Joint



Tubing Cutter Ring Set



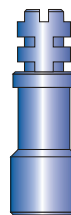
Wireline Crossover



Quick Lock Assy.



Quick Lock Male-Sub



Double Shoulder Quick Lock Male-Sub

Rope Socket

Rope Sockets are used as a means to connect wireline to the tool string. Rope Sockets are available in 4 types as under:

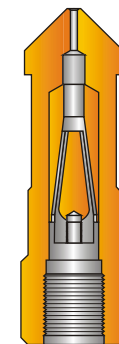
Wedge Type				
Size (in.)	Max. OD (in.)	F/N OD (in.)	Thread Conn. Box (in. TPI)	Wire size (in.)
1-1/8	1.125	0.875	5/8 - 11 UNC	0.066 / 0.092
1-1/2	1.500	1.375	15/16 - 10 UN	0.092 / 0.108
1-1/2	1.500	1.375	1-1/16 - 10 UN	0.092 / 0.108
1-7/8	1.875	1.750	15/16 - 10 UN	0.092 / 0.108
1-7/8	1.875	1.750	1-1/16 - 10 UN	0.092 / 0.108
2-1/8	2.125	1.750	1-1/16 - 10 UN	0.092 / 0.108
2-1/2	2.500	2.312	1-9/16 - 10 UN	0.092 / 0.108

Spool Type				
Size (in.)	Max. OD (in.)	F/N OD (in.)	Thread Conn. Box (in. TPI)	Wire size (in.)
1	1.000	0.875	5/8 - 11 UNC	0.066 – 0.092
1-1/4	1.250	1.187	15/16 - 10 UN	0.066 – 0.092
1-1/2	1.500	1.375	15/16 - 10 UN	0.066 – 0.092
1-7/8	1.750	1.875	1-1/16 - 10 UN	0.066 – 0.092
2-1/8	2.125	1.750	1-1/16 - 10 UN	0.092
2-1/2	2.500	2.312	1-9/16 - 10 UN	0.092

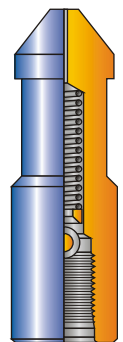
Slip Type				
Size (in.)	Max. OD (in.)	F/N OD (in.)	Thread Conn. Box (in. TPI)	Wire size (in.)
1-1/2	1.500	1.375	15/16 - 10 UN	0.187
1-7/8	1.875	1.750	1-1/16 - 10 UN	0.187
2-1/8	2.125	1.750	1-1/16 - 10 UN	0.187
2-1/2	2.500	2.312	1-9/16 - 10 UN	0.187

Clamp Type				
Size (in.)	Max. OD (in.)	F/N OD (in.)	Thread Conn. Box (in. TPI)	Wire size (in.)
1-1/4	1.250	1.187	15/16 - 10 UN	0.125
1-1/2	1.500	1.375	15/16 - 10 UN	0.125 / 0.187
1-7/8	1.875	1.750	1-1/16 - 10 UN	0.187
2-1/2	2.500	2.312	1-9/16 - 10 UN	0.250

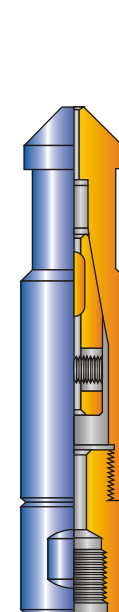
Other sizes available on request.



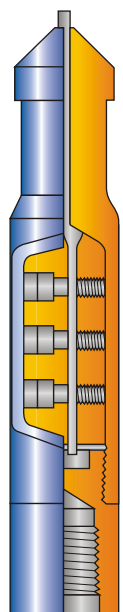
Wedge Type



Spool Type



Slip Type



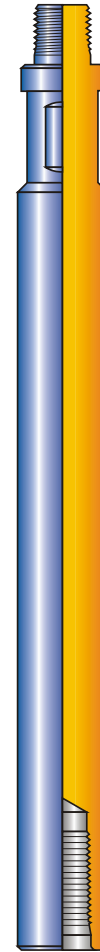
Clamp Type

Wireline Stem / Weight Bar

Wireline Stems are used to provide weight to tool string to eliminate friction with elastomers of stuffing box and for smooth running of wireline against well pressure. Wireline stems are available in various Lengths, ODs, Connections.

Wireline Stems			
Size (inch)	Max. OD (inch)	F/N OD (inch)	Thread Connection Pin X Box (inch TPI)
1	1.000	0.875	5/8-11 UNC
1-1/4	1.250	1.187	15/16-10 UN
1-1/2	1.500	1.375	15/16-10 UN
1-7/8	1.875	1.750	1-1/16-10 UN
2-1/8	2.125	1.750	1-1/16-10 UN
2-1/2	2.500	2.312	1-9/16-10 UN

Length 2, 3 or 5 feet. Other sizes available on request.



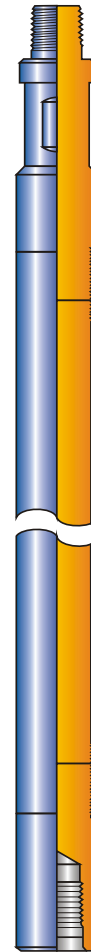
Wireline Stem / Weight Bar

Lead Filled Stem

Lead Filled Stems are used to provide additional weight to tool string, without change in OD & Length. These are normally used in well bores with high pressure, to eliminate friction with elastomers of stuffing box and for smooth running of wireline against well pressure.

Lead Filled Stems			
Size (inch)	Max. OD (inch)	F/N OD (inch)	Thread Connection Pin X Box (inch TPI)
1-1/4	1.250	1.187	15/16-10 UN
1-1/2	1.500	1.375	15/16-10 UN
1-7/8	1.875	1.750	15/16-10 UN
2-1/8	2.125	1.750	15/16-10 UN

Length 2, 3 or 5 feet. Other sizes available on request.



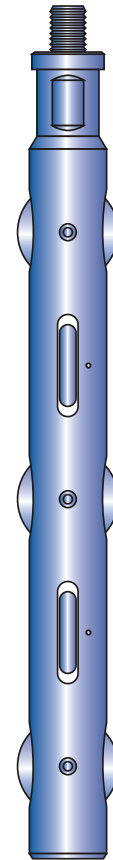
Leaded Stem

Roller Stem

Roller Stems are used with tool string in deviated wells. Its application is to reduce friction against tubing ID. In assembly of Roller Stems: Teflon / Alloy Steel Rollers (suitable for high temperature / H₂S Service), specialty bearings are assembled with body. Roller Stems are available in various Lengths, ODs, Connections and Rollers dia.

Roller Stems				
Size (inch)	Max. OD (inch)	F/N OD (inch)	Thread Connection Pin X Box (in. TPI)	No. of wheels
1-1/2	2.00	1.375	15/16-10 UN	3
1-7/8	2.50	1.750	1-1/16-10 UN	3
2-1/2	3.00	2.312	1-9/16-10 UN	3
1-1/2	2.00	1.375	15/16-10 UN	4
1-7/8	2.50	1.750	1-1/16-10 UN	4
2-1/2	3.00	2.312	1-9/16-10 UN	4

Other sizes available on request.



Roller Stem

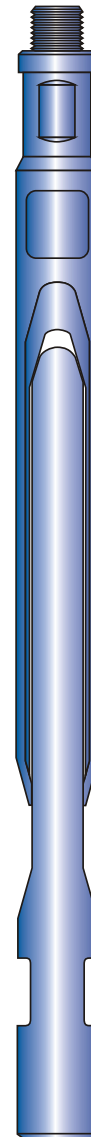
Wireline Link Jar (Mechanical Jar)

Spang Link or Mechanical Jars are used in wireline fishing operations with stems. The weight of stems and jars can be used by operator for jarring by pulling and then releasing wireline. These Jars are available in various sizes and strokes. Force = Mass x Acceleration.

Stem weight is fixed but speed can be varied. In jar down action, speed is limited due to limited travel and gravity. Jar of action is more effective as speed can be increased by increasing the spooling speed of wireline unit and using long jars.

Wireline Link Jars				
Size (inch)	Max. OD (inch)	F/N OD (inch)	Thread Conn. Pin X Box (in. TPI)	Stroke (inch)
1	1.000	0.875	5/8-11 UNC	20
1	1.000	0.875	5/8-11 UNC	24
1-1/4	1.250	1.187	15/16-10 UN	20
1-1/4	1.250	1.187	15/16-10 UN	24
1-1/4	1.250	1.187	15/16-10 UN	30
1-1/2	1.500	1.375	15/16-10 UN	20
1-1/2	1.500	1.375	15/16-10 UN	24
1-7/8	1.875	1.750	1-1/16-10 UN	20
1-7/8	1.875	1.750	1-1/16-10 UN	24
1-7/8	1.875	1.750	1-1/16-10 UN	30
2-1/8	2.125	1.750	1-1/16-10 UN	30
2-1/2	2.500	2.312	1-9/16-10 UN	24

Other sizes available on request.



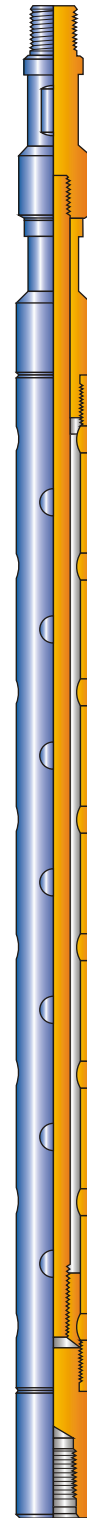
Spang Link Jar

Wireline Tubular Jar

Tubular Jars are used in tool string for effective jarring. Tubular Jars are commonly used to remove obstacles from the tubing ID by jarring. This is an effective tool during fishing of wire as possibility of Tubular Jar getting jammed with wire is minimal.

Wireline Tubular Jars				
Size (inch)	Max. OD (inch)	F/N OD (inch)	Thread Conn. Pin X Box (in. TPI)	Stroke (inch)
1	1.000	0.875	5/8-11 UNC	18
1	1.000	0.875	5/8-11 UNC	20
1-1/8	1.125	0.875	5/8-11 UNC	18
1-1/4	1.250	1.187	15/16-10 UN	20
1-1/4	1.250	1.187	15/16-10 UN	24
1-1/4	1.250	1.187	15/16-10 UN	30
1-1/2	1.500	1.375	15/16-10 UN	20
1-1/2	1.500	1.375	15/16-10 UN	24
1-1/2	1.500	1.375	15/16-10 UN	30
1-3/4	1.750	1.375	15/16-10 UN	20
1-3/4	1.750	1.375	15/16-10 UN	30
1-7/8	1.875	1.750	1-1/16-10 UN	20
1-7/8	1.875	1.750	1-1/16-10 UN	30
2-1/8	2.125	1.750	1-1/16-10 UN	20
2-1/8	2.125	1.750	1-1/16-10 UN	24
2-1/8	2.125	1.750	1-1/16-10 UN	30
2-1/2	2.500	2.312	1-9/16-10 UN	24
2-1/2	2.500	2.312	1-9/16-10 UN	30

Other sizes available on request.



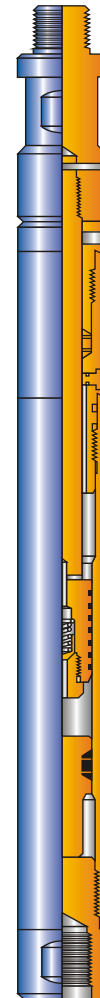
Tubular Jar

Wireline Hydraulic Jar

Hydraulic Jars are used for jarring when difficulty is face to obtain good jarring action with Mechanical Jars, particularly due to deviated wells or wells with highly viscous fluids. These jars provide only up stroke and are run between stem and Mechanical Jar.

Wireline Hydraulic Jars				
Size (inch)	Max. OD (inch)	F/N OD (inch)	Thread Conn. Pin X Box (in. TPI)	Stroke (inch)
1-1/8	1.125	0.875	5/8-11 UNC	6.750
1-1/4	1.250	1.187	15/16-10 UN	9.250
1-1/2	1.500	1.375	15/16-10 UN	9.187
1-3/4	1.750	1.375	1-1/16-10 UN	10.000
2-1/8	2.125	1.750	1-3/16-10 UN	11.625

Other sizes available on request.



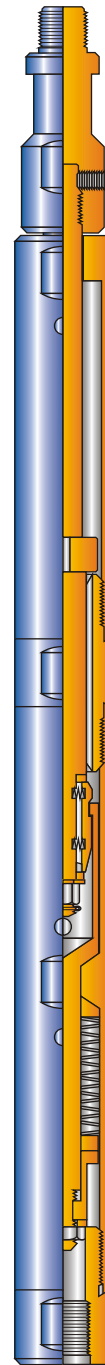
Hydraulic Jar

Wireline Spring Jar

Spring Jars are used to provide upward jarring during wireline fishing operations. Spring Jars can be used in place of Hydraulic Jar. These Jars are run between Stem and Mechanical Jar in tool string.

Wireline Spring Jars				
Size (inch)	Max. OD (inch)	F/N OD (inch)	Thread Connection Pin X Box (in. TPI)	Stroke (inch)
1-1/2	1.500	1.375	15/16-10 UN	12
1-7/8	1.875	1.750	1-1/16-10 UN	12
2-1/2	2.500	2.312	1-9/16-10 UN	12

Other sizes available on request.



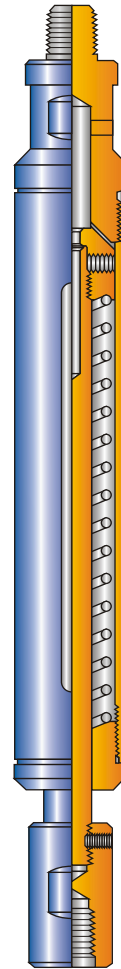
Spring Jar

Wireline Accelerator

Wireline Accelerator is used to run with Hydraulic Jar to reduce shocks at Rope Socket to avoid pulling of wire out of socket and accelerate movement of stem, to achieve effective jarring. Accelerator facilitate constant pull at the time of opening of Hydraulic Jar.

Wireline Accelerator				
Size (inch)	Max. OD (inch)	F/N OD (inch)	Thread Conn. Pin X Box (in. TPI)	Length (inch)
1-1/2	1.500	1.375	15/16-10 UN	22
1-7/8	1.875	1.750	1-1/16-10 UN	26
2-1/8	2.125	1.750	1-1/16-10 UN	38
2-1/2	2.500	2.312	1-9/16-10 UN	35
3	3.000	2.312	1-9/16-10 UN	38

Other sizes available on request.



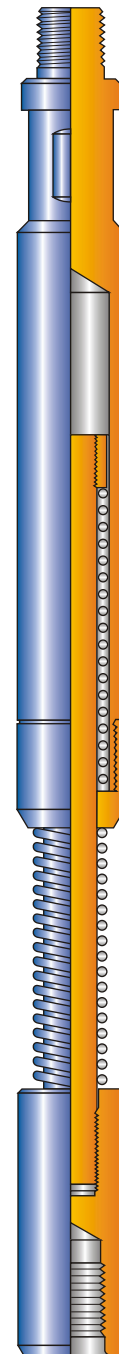
Wireline Accelerator

Wireline Shock Absorber

Wireline Shock Absorber is used to reduce the shocks to sub surface instruments, caused due to jarring, surging etc.

Wireline Shock Absorber			
Size (inch)	F/N OD (inch)	Top Connection Pin (in. TPI)	Bottom Connection Box (in. TPI)
1.50	1.375	15/16-10 UN	¾ - 16 UNF
1.75	1.375	15/16-10 UN	¾ - 16 UNF
2.00	1.375	15/16-10 UN	¾ - 16 UNF

Other sizes available on request.



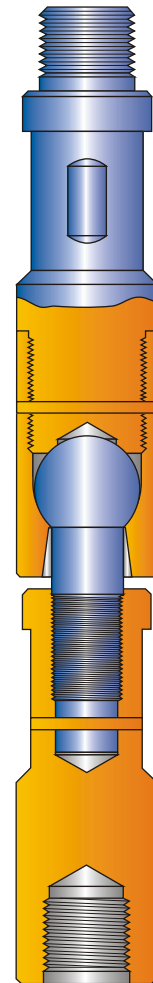
Shock Absorber

Wireline Knuckle Joint

Knuckle Joints are used to add flexibility to the tool string and Knuckle Joints are effective in deviated wells. Whenever Stem and jar are not aligned or not moving freely it is impossible to operate tools. However adding knuckle joint in a string this situation can be avoided. Knuckle Joints are run immediately below Mechanical Jar. For additional flexibility additional Knuckle Joint can be included between Stem and Jar.

Wireline Knuckle Joints			
Size (inch)	Max. OD (inch)	F/N OD (inch)	Thread Connection Pin X Box (in. TPI)
1-1/8	1.125	0.875	5/8-11 UNC
1-1/4	1.250	1.187	15/16-10 UN
1-1/2	1.500	1.375	15/16-10 UN
1-7/8	1.875	1.750	1-1/16-10 UN
2-1/8	2.125	1.750	1-1/16-10 UN
2-1/2	2.500	2.312	1-9/16-10 UN

Other sizes available on request.



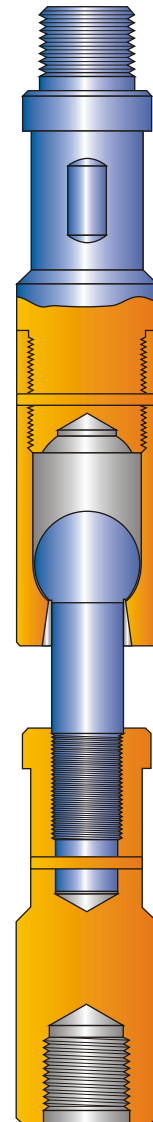
Knuckle Joint

Wireline Knuckle Jar

Knuckle Jars are used as a combination of functions of Knuckle Joint & Short Tubular Jars. Knuckle Jars can be utilized to jar with short strokes to free the string. Like in Knuckle Joint, Knuckle Jar too has specially designed double fishing neck.

Wireline Knuckle Jars				
Size (inch)	Max. OD (inch)	F/N OD (inch)	Thread Connection Pin X Box (in. TPI)	Stroke (inch)
1-1/4	1.250	1.187	15/16-10 UN	2
1-1/2	1.500	1.375	15/16-10 UN	2
1-1/2	1.500	1.375	15/16-10 UN	4
1-7/8	1.875	1.750	1-1/16-10 UN	6
2-1/8	2.125	1.750	1-1/16-10 UN	6
2-1/2	2.500	2.312	1-9/16-10 UN	6

Other sizes available on request.



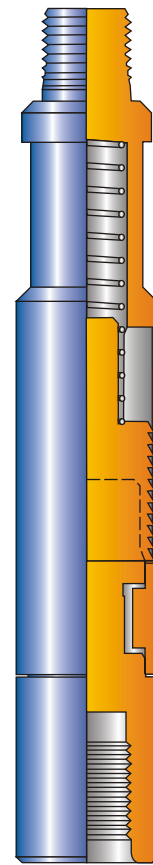
Knuckle Jar

Quick Lock Couplings

Quick Couplings are used as a fast, safe & strong method of tool coupling. Coupling can be made by hand, eliminating requirement of wrenches / spanners etc.

Quick Lock Couplings			
Size (inch)	Max. OD (inch)	F/N OD (inch)	Thread Connection Pin X Box (in. TPI)
1-1/4	1.250	1.187	15/16-10 UN
1-1/2	1.500	1.375	15/16-10 UN
1-7/8	1.875	1.750	1-1/16-10 UN
2-1/2	2.500	2.312	1-9/16-10 UN

Other sizes available on request.



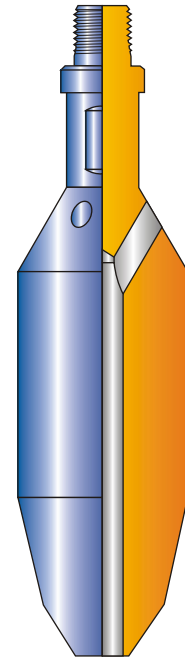
Quick Lock Coupling

Tubing Swage

Tubing Swages are used to remove large obstructions and restore light collapse in the tubing. This allows smooth running of tool string in well bore. The OD of tubing swage should be equal to tubing drift ID. It should be run with up stroke jar to enable operator to take it out of tubing if swage is jammed.

Tubing Swages			
Size (inch)	Max. OD (inch)	F/N OD (inch)	Thread Connection Pin (in. TPI)
1-1/2	1.521	1.187	15/16-10 UN
2	1.906	1.375	15/16-10 UN
2-1/2	2.344	1.375	15/16-10 UN
3	2.937	1.750	1-1/16-10 UN
4	3.720	1.750	1-1/16-10 UN

Other sizes available on request.



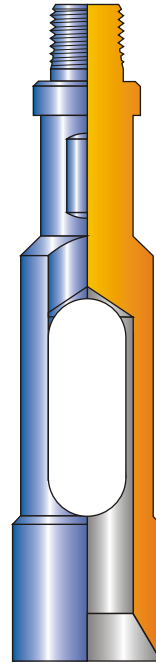
Tubing Swage

Gauge Cutter

Gauge/Paraffin Cutters are run in hole before running sub surface equipment. Gauge/Paraffin Cutters are used to check if sub surface equipment can pass freely thru tubing & there are no obstructions and to locate top of nipple. The bottom of Gauge/Paraffin Cutter is suitable to cut paraffin, scale and any other obstacles in tubing.

Tubing Gauge / Paraffin Cutters		
OD Range (inch)*	F/N OD (inch)	Thread Connection Pin (in. TPI)
0.905 – 1.575	0.875	5/8-11 UNC
1.655 – 2.265	1.375	15/16-10 UN
2.323 – 2.520	1.375	15/16-10 UN
2.598 – 2.953	1.750	1-1/16-10 UN
2.992 – 3.900	2.312	1-1/16-10 UN
5.750 – 6.151	2.312	1-9/16-10 UN

* Tubing Gauge / Paraffin Cutter are available in MM increments within the specified O.D. ranges. When ordering, specify required O.D. in MM (Inches x 25.4 = MM)



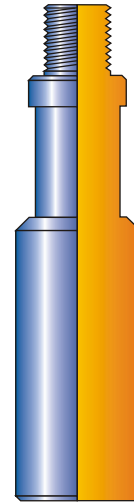
Tubing Gauge / Paraffin Cutter

Blind Box

Blind Boxes are used when heavy downward jarring is required to dislodge a fish or push something down the hole. Bottom surface of Blind Box is flat and hardened to reduce wear and damage.

Blind Boxes		
OD Range (inch)*	F/N OD (inch)	Thread Connection Pin (in. TPI)
1.187 – 1.250	1.187	15/16-10 UN
1.625 – 1.375	1.375	15/16-10 UN
2.625 – 2.750	1.750	1-1/16-10 UN
3.500 – 4.625	2.312	1-9/16-10 UN
5.250 – 5.750	2.312	1-9/16-10 UN

* Blind Boxes are available in MM increments within the specified O.D. ranges.
When ordering , specify required O.D. in MM (Inches x 25.4 = MM)



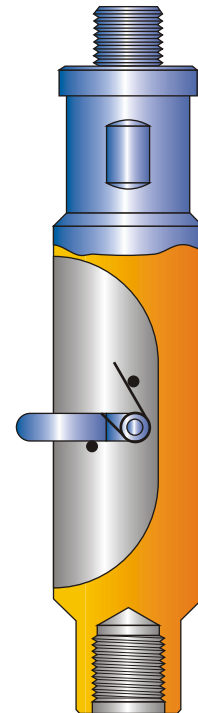
Blind Box

Tubing End Locator

Tubing End Locators are used to locate end of tubing during completions. With its spring loaded finger, it can be run in various sizes of tubing ranging from 2-3/8" till 4-1/2".

Tubing End Locators				
Size (inch)	Max. OD (inch)*	F/N OD (inch)	Top Connection Pin (in. TPI)	Bottom Connection Pin (in. TPI)
2 – 2-1/2	1.750	1.375	15/16-10 UN	1 - 11-1/2 NPT
3	2.500	1.375	15/16-10 UN	1 - 11-1/2 NPT
4	3.750	2.312	1 - 9/16-10 UN	1 - 11-1/2 NPT

Other sizes available on request. * O.D. with finger sheared



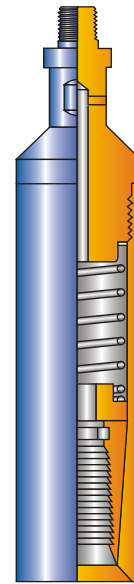
Tubing End Locator

Wireline Overshot

Wireline Overshots are used to engage sub-surface tools in various situations as determined by operator. Overshots consist of hardened steel slips with sharpened upward teeth, engage the fish. The tapered ID of skirt and upward pull / jarring set the slips tighter.

Wireline Overshots					
Size (inch)	Part No.	Max. OD (inch)	F/N OD (inch)	Thread Conn. Pin (in. TPI)	To catch Dia's (inch)
1.75	351721	1.750	1.375	15/16-10 UN	0.50 – 0.75
					0.75 – 1.00
					1.00 – 1.25
2.625	352632	2.625	1.750	1-1/16-10 UN	0.50 – 0.75
					0.75 – 1.00
					1.00 – 1.25
					1.25 – 1.50
					1.75 – 2.00
3.800	353846	3.800	2.312	1-9/16-10 UN	0.50 – 0.95
					0.95 – 1.40
					1.40 – 1.85
					2.30 – 2.75

Other sizes available on request. Each Assembly is complete with one set of slips. Please specify required size when ordering.

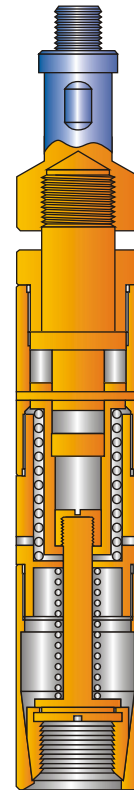


Wireline Overshot

Releasable Overshot

Releasable Overshot is used in Wireline Fishing Operation. Bowen and 'O' Banon type Overshot cannot be released once they are latched. However in Releasable Overshots, the slips can be released by downward jarring.

Releasable Overshot		
OD (inch)	F/N OD (inch)	Top Connection Pin (in. TPI)
1.875	1.375	15/16-10 UN
2.250	1.375	15/16-10 UN
2.625	1.750	1-1/16-10 UN



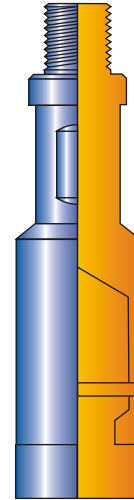
Wireline Overshot

Impression Block

Impression Blocks are used during fishing operations to check the shape / size of the top of fish and to determine tool appropriate for fishing operation. Lead is filled within body of Impression Block and a pin is fixed thru body of Impression Block and lead to stabilize lead within body.

Impression Blocks		
OD Range (inch)*	F/N OD (inch)	Thread Connection Pin (in. TPI)
1.000 – 1.230	0.875	5/8-11 UNC
1.375 – 1.410	1.187	15/16-10 UN
1.750 – 2.250	1.375	15/16-10 UN
2.625 – 2.812	1.750	1-1/16-10 UN
3.500 – 4.625	2.312	1-9/16-10 UN
5.500 – 5.750	2.312	1-9/16-10 UN

* Impression Blocks are available in MM increments within the specified O.D. ranges. When ordering, specify required O.D. in MM (Inches x 25.4 = MM)



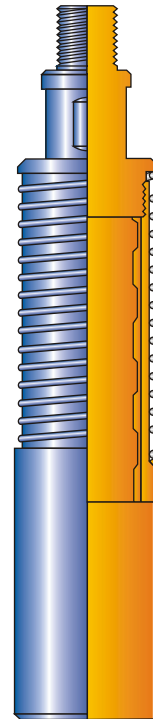
Impression Block

Magnetic Fishing Tool

Magnetic Fishing Tools are used to remove small particles of metals from the top of tools during operations.

Magnetic Fishing Tool			
Size (inch)	Max. OD (inch)	F/N OD (inch)	Thread Connection Pin (in. TPI)
1-1/4	1.23	0.875	5/8-11 UNC
1-1/2	1.43	1.187	15/16-10 UN
2	1.87	1.375	15/16-10 UN
2-1/2	2.18	1.375	15/16-10 UN
2-1/2	2.29	1.375	15/16-10 UN
3	2.84	2.312	1-1/16-10 UN
3-1/2	3.50	2.312	1-1/16-10 UN
3-3/4	3.75	2.312	1-1/16-10 UN

Other sizes available on request.



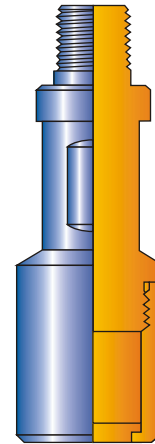
Magnetic Fishing Tool

Wireline Fishing Magnet

Fishing Magnets are used to remove small pieces of ferrous metals from top of tools and also to retrieve metallic scales.

Wireline Fishing Magnet			
Size OD (inch)	F/N OD (inch)	Thread Connection Pin (in. TPI)	To pull (lbs)
1.50	1.375	15/16-10 UN	11 – 14
1.75	1.375	15/16-10 UN	15 – 20
2.25	1.375	15/16-10 UN	25 – 50
2.65	1.375	15/16-10 UN	50 – 75
3.65	1.750	1-1/16-10 UN	150 – 250

Other sizes available on request.



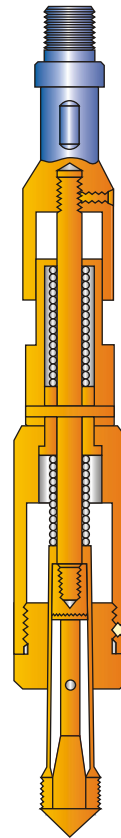
Wireline Fishing Magnet

Wireline Spear

Wireline Spears are used in general fishing operations when wire is bundled up very badly and two prong wireline grab can not engage it.

Wireline Spears				
Size (inch)	Max. OD (inch)	F/N OD (inch)	Thread Connection Pin (in. TPI)	To catch Dia's (inch)
1-1/2	1.50	1.375	15/16-10 UN	0.50 – 0.75
1-1/2	1.50	1.375	15/16-10 UN	0.75 – 1.00
1-1/2	1.50	1.375	15/16-10 UN	1.00 – 1.25
1-1/2	1.50	1.375	15/16-10 UN	1.25 – 1.50
1-3/4	1.75	1.375	15/16-10 UN	1.50 – 1.75
2-1/4	2.25	1.750	15/16-10 UN	1.75 – 2.25
2-3/4	2.75	1.750	1-1/16-10 UN	2.25 – 2.75
3-1/2	3.50	2.312	1-1/16-10 UN	2.75 – 3.50

Other sizes available on request.



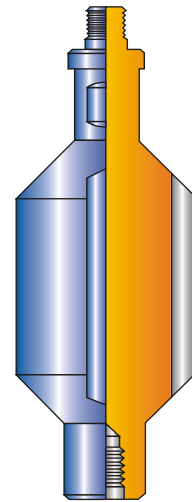
Wireline Spear

Fluted Centralizer

Fluted Centralizers are used in deviated wells to ensure that tool string is at centralized position.

Fluted Centralizers			
Size (inch)	Max. OD (inch)	F/N OD (inch)	Thread Connection Pin X Box (in. TPI)
1-1/2	1.50	1.187	15/16-10 UN
2-1/2	2.50	1.750	1-1/16-10 UN
3-1/2	3.50	2.312	1-1/16-10 UN
6	6.00	2.312	1-9/16-10 UN

Other sizes available on request.

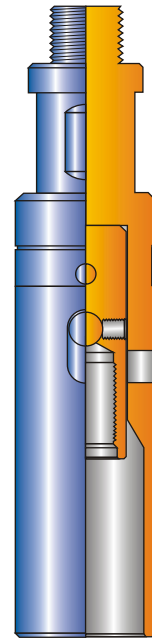


Fluted Centralizer

Shear Up Adapter GU

GS Pulling Tools are used to unlock and pull various down hole equipment with Internal Fishing Necks. These tools are designed to shear with Jar Down action. With addition of GU Adapter, complete assembly is changed to GR Shear Up Tool.

Shear Up Adapter GU			
Size (inch)	Actual OD (inch)	F/N OD (inch)	Thread Connection Pin X Box (inch TPI)
1-1/2	1.470	1.187	15/16-10
2	1.812	1.375	15/16-10
2-1/2	2.250	1.750	15/16-10
3, 3-1/2, 4	2.718	2.312	1-1/16-10

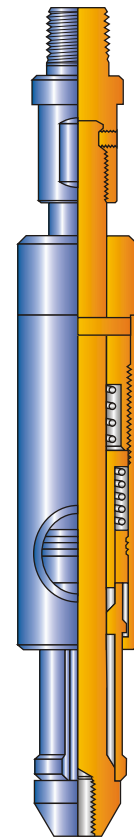


GU Shear Up Adapter

Pulling Tool Type GS

GS Pulling Tools are used to unlock and pull various down hole equipment with Internal Fishing Necks. These tools are designed to shear with Jar Down action. With addition of GU Adapter, complete assembly is changed to GR Shear Up Tool.

GS Pulling Tools						
Size (inch)	Prong Thread	F/N ID Guide (in)	GS Pulling Tool OD (in)	F/N OD (inch)	Top Thread	Reach (inch)
1-1/4	3/8-16	0.880	1.160	1.000	5/8-11	1.08
1-1/2 – 1-3/4	1/2-13	1.060	1.470	1.187	15/16-10	1.62
2	1/2-13	1.380	1.750	1.375	15/16-10	1.62
2	1/2-13	1.380	1.810	1.375	15/16-10	1.62
2-1/2	5/8-11	1.810	2.160	1.750	15/16-10	1.62
2-1/2	5/8-11	1.810	2.160	1.750	15/16-10	1.62
3	5/8-11	2.310	2.720	2.312	1-1/16-10	1.62
3-1/2	1-3/8-12	2.620	3.110	2.312	1-1/16-10	1.62
4	2-1/8-12	3.120	3.620	2.312	1-1/16-10	1.62
5	2-1/2-10	4.000	4.500	3.125	1-1/16-10	1.82
7	3-5/8-10	5.250	5.830	3.125	1-1/16-10	1.86
7	3-5/8-10	5.250	5.880	3.125	1-1/16-10	1.86



GS Pulling Tool

Pulling Tool Type JD & JU

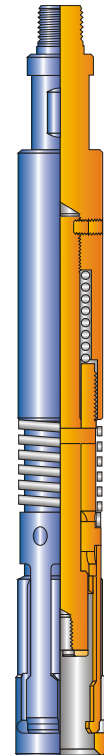
JU (Jar Up) Pulling Tools are used to shear and release tools and are available with C, S Core options.

JD (Jar Down) Pulling Tools are also used to shear and release tools and are available with C, S, L Core options.

The cores of JU & JD are same.

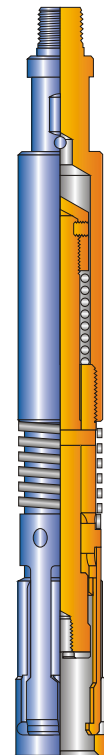
JU & JD Pulling Tools are used to engage External Fishing Necks.

JU Pulling Tools, Type JUC						
Size (inch)	Max. OD (inch)	F/N OD (inch)	Pulls Neck OD (inch)	Connecting Thread Pin	Prong Connecting Thread Box	Reach* (inch)
1-1/4	1.250	1.187	1.937	15/16-10	1/4-20	1.937
1-1/2	1.422	1.187	1.187	15/16-10	1/2-13	1.093
2	1.859	1.375	1.375	15/16-10	1/2-13	1.437
2-1/2	2.250	1.375	1.750	15/16-10	1/2-13	1.312
3	2.812	1.750	2.312	15/16-10	5/8-11	1.437
4	3.750	2.312	3.125	1-1/6-10	1-1/4-12	3.375
JD Pulling Tools, Type JUS						
1-1/2	1.422	1.187	1.187	15/16-10	1/2-13	1.843
2	1.859	1.375	1.375	15/16-10	1/2-13	2.125
2-1/2	2.250	1.375	1.750	15/16-10	1/2-13	2.187
3	2.812	1.750	2.312	15/16-10	5/8-11	2.125



JU Pulling Tool

JD Pulling Tools, Type JDC						
Size (inch)	Max. OD (inch)	F/N OD (inch)	Pulls Neck OD (inch)	Connecting Thread Pin	Prong Connecting Thread Box	Reach* (inch)
1-1/4	1.291	1.187	0.875	15/16-10	1/4-20	1.937
1-3/8	1.375	1.187	1.000	15/16-10	N/A	1.875
1-1/2	1.422	1.187	1.187	15/16-10	1/2-13	1.093
2	1.859	1.375	1.375	15/16-10	1/2-13	1.437
2-1/2	2.250	1.375	1.750	15/16-10	1/2-13	1.312
3	2.796	1.750	2.312	15/16-10	1/2-13 and 5/8-11	1.437
3	2.796	1.750	2.312	15/16-10	5/8-11	0.687
4	3.750	2.312	3.125	1-1/6-10	1-1/4-12	2.312
JD Pulling Tools, Type JDS						
1-1/4	1.291	1.187	0.875	15/16-10	N/A	2.687
1-1/2	1.422	1.187	1.187	15/16-10	1/2-13	1.843
1-5/8	1.625	1.187	1.187	15/16-10	1/2-13	1.843
2	1.859	1.375	1.375	15/16-10	1/2-13	2.250
2-1/2	2.250	1.375	1.750	15/16-10	1/2-13	2.187
3	2.812	1.750	2.312	15/16-10	5/8-11	2.125
JD Pulling Tools, Type JDL						
2	1.859	1.375	1.375	15/16-10	1/2-13	2.812
3	2.812	1.750	2.312	15/16-10	5/8-11	2.609



JD Pulling Tool

* Reach is the distance from the core to the engaging shoulder of the dogs.
Other core length / OD's available on request.

Pulling Tool Type R

R Pulling Tools are used to engage External Fishing Necks and to be released by Jar-Up action. These tools are available in 3 different types:

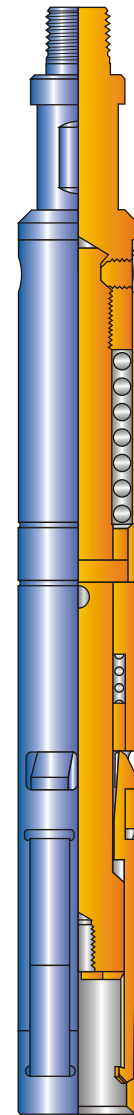
- RB: w/Longest Core
- RS: w/Medium Core
- RJ: w/Short Core

Either of above tools can be changed to other types by changing core. All other parts of above tools are interchangeable .

R Pulling Tools, Type RB					
Size (inch)	Max. OD (inch)	F/N OD (inch)	Pulls Neck OD (inch)	Top Thread	Reach (inch)
1-1/4	1.220	1.000	1.000	5/8-11	1.219
1-1/2	1.430	1.188	1.188	15/16-10	1.264
1-3/4	1.484	1.188	1.188	15/16-10	1.050
2	1.770	1.375	1.375	15/16-10	1.219
2-1/2	2.180	1.375	1.750	15/16-10	1.203
3	2.740	2.312	2.312	1-1/16-10	1.297
3-1/2	3.110	2.312	2.750	1-1/16-10	1.350
4	3.670	2.312	3.125	1-1/16-10	1.490

R Pulling Tools, Type RS					
Size (inch)	Max. OD (inch)	F/N OD (inch)	Pulls Neck OD (inch)	Top Thread	Reach (inch)
1-1/4	1.220	1.000	1.000	5/8-11	2.125
1-1/2	1.430	1.188	1.188	15/16-10	1.797
1-3/4	1.562	1.188	1.188	15/16-10	1.797
2	1.770	1.375	1.375	15/16-10	1.984
2-1/2	2.180	1.375	1.750	15/16-10	1.954
3	2.740	2.312	2.312	1-1/16-10	2.190
3-1/2	3.110	2.312	2.750	1-1/16-10	2.100
4	3.718	2.312	3.125	1-1/16-10	2.156

R Pulling Tools, Type RJ					
Size (inch)	Max. OD (inch)	F/N OD (inch)	Pulls Neck OD (inch)	Top Thread	Reach (inch)
1-1/4	1.220	1.000	1.000	5/8-11	1.844
1-1/2	1.430	1.188	1.188	15/16-10	2.547
1-3/4	1.560	1.188	1.188	15/16-10	2.550
2	1.770	1.375	1.375	15/16-10	2.547
2-1/2	2.180	1.375	1.750	15/16-10	2.547
3	2.740	2.312	2.312	1-1/16-10	2.609
4	3.660	2.312	3.125	1-1/16-10	2.000



R Pulling Tool

Pulling Tool Type S

S Pulling Tools are used to retrieve equipment with external fishing necks by Jar-Up action. These tools are also used to run and release equipment by jarring down. Available in 3 different types:

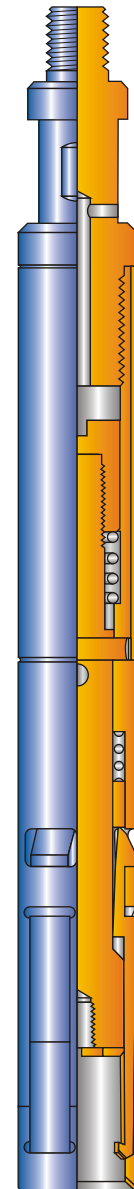
- SB: w/Longest Core
- SM: w/Medium Core
- SS: w/Short Core

Either of above tools can be changed to other types by changing core. All other parts of above tools are interchangeable .

R Pulling Tools, Type SB					
Size (inch)	Max. OD (inch)	F/N OD (inch)	Pulls Neck OD (inch)	Top Thread	Reach (inch)
1-1/4	1.220	1.000	1.000	5/8-11	1.280
2-1/2	1.437	1.188	1.188	15/16-10	0.688
2-1/2	1.437	1.188	1.188	15/16-10	1.297
2	1.766	1.375	1.375	15/16-10	1.219
2-1/2	2.188	1.375	1.750	15/16-10	1.281
3	2.734	2.312	2.312	1-1/16-10	1.380
3	2.844	2.312	2.312	1-1/16-10	1.500
3-1/2	3.115	2.312	2.750	1-1/16-10	1.690
4	3.670	2.312	2.750	1-1/16-10	1.500

R Pulling Tools, Type SM					
Size (inch)	Max. OD (inch)	F/N OD (inch)	Pulls Neck OD (inch)	Top Thread	Reach (inch)
1-2/3	1.188	0.875	0.875	15/16-10	1.680
1-3/16	1.190	0.875	0.875	15/16-10	1.680
1-1/2	1.380	1.375	0.875	15/16-10	1.578
2	1.766	1.375	1.375	15/16-10	1.640

R Pulling Tools, Type SS					
Size (inch)	Max. OD (inch)	F/N OD (inch)	Pulls Neck OD (inch)	Top Thread	Reach (inch)
1-1/2	1.437	1.188	1.188	15/16-10	1.780
2	1.766	1.375	1.375	15/16-10	2.030
2-1/2	2.188	1.375	1.750	15/16-10	2.000
3	2.844	2.312	2.312	1-1/16-10	2.210



S Pulling Tool

Sand Pump Bailer

Sand Pump Bailer are used when a sand bridge is encountered during operations. The bailer pulls sand into cylinder, to remove sand bridge. Bailer are available in 3 types:

1. W/Flat Bottom : for easy bailing of sand
2. W/Angled Bottom : for bailing hard packed sand
3. W/Flapper Bottom : for bailing metallic particles which can not pass thru ball & seat

Sand Pump Bailer			
Size (inch)	F/N OD (inch)	Thread Connection Pin (in. TPI)	Guide Shoe OD (inch)*
1-1/4	1.187	15/16-10 UN	1.250
1-5/8	1.187	15/16-10 UN	1.437
			1.850
			2.125
			2.500
			2.687
			3.500
			3.750

* Guide Shoe O.D. is the max. Bailer Assembly O.D. unless a specified O.D. is requested. The smallest O.D. Guide Shoe is supplied.



Sand Pump Bailer

Sample Bailer

The Sample Bailer is used to collect samples of debris from the well bore creating obstructions. Sample Bailer are available in two basic designs with ball or flapper shoe. The shoe opens when sample bailer assembly is forced in debris and closes when the sample bailer is forced out.

Sample Bailer		
Size (inch)	F/N OD (inch)	Thread Connection Box (in. TPI)
1.5	1.375	15/16-10 UN
1.75	1.375	15/16-10 UN
2	1.750	1-1/16-10 UN
2.5	2.312	1-1/16-10 UN
3	2.312	1-1/16-10 UN
4	2.312	1-9/16-10 UN

Sand Pump Bailer

The pump bailer is used to remove the bulk of sand above the wireline tools / equipment. It is a hollow tube with a check valve (ball or flapper) at its lower end, which is usually mule shoe (cut at 45°). It contains a piston and valve attached to a rod which passes through a loose hold (for fluid bypass) at the upper end of the tube. This rod is attached to the tool string.

As the bottom of the bailer rests on the sand, the weight of the tool string pushes the piston to the bottom of the tube. As this piston is picked up, it sucks sand and debris into the bottom of the bailer. This slow 'stroking process' continues until the bailer is full.

Hydrostatic Bailer

A hydrostatic bailer consists of a chamber sealed at atmospheric pressure. When the bailer reaches the top of the sand and is jarred down, a shear disk is ruptured and the bottom hole pressure surging into the chamber sucks up the sand. A ball check in the bottom serves to trap the sand in the chamber.

These bailer are used to clean off sand or foreign materials from around a fishing neck very successfully and are not recommended for normal bailing operations. In soft sand , this bailer will bury itself each time it goes off. It usually requires a hard object against which to shear the disc.



Sample Bailer

Always use a pump bailer to remove the bulk of sand etc. until pump bailer is resting on the plug or whatever is to be removed. A hydrostatic bailer can then be used to clean around the fishing neck.

Hydrostatic bailer are not recommended for normal bailing operations because:

- Too slow
- A high possibility of sticking in the sand due to suction action when the sealed chamber is opened.

The sand pumps and hydrostatic bailer can be dangerous after pulling them to the surface and when unloading the sand, due to pressure trapped inside the chamber. Caution should be taken when removing the check valve on the bottom to make sure there is no pressure inside. This can be determined usually by how hard the bottom is to unscrew. Once should never completely remove the bottom while the bailer is pressured up. Do not hammer on a bailer to remove sand. These bailer are subject to bottom hole pressure. It is good idea to visually inspect these bailer for wear and wall reduction.

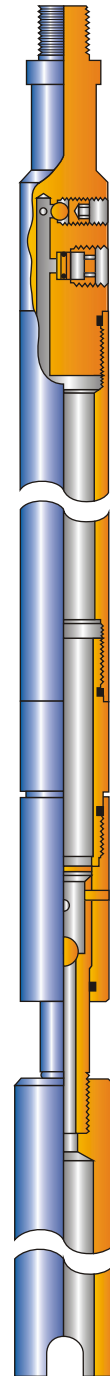
Hydrostatic bailer have pressure relief valves, and some have an automatic pressure relief valve. These become plugged easily and can be dangerous to handle, so observe the above caution when unscrewing the bottom.

Hydrostatic Bailer

Hydrostatic Bailer is used to clean off sand or foreign materials from around a fishing neck of tools. Hydrostatic Bailer is used in situation where Pump Type Bailer are not effective.

Hydrostatic Bailer			
Size (inch)	F/N OD (inch)	Thread Connection Pin (in. TPI)	Guide Shoe OD (inch)*
1-3/8	1.187	15/16-10 UN	1.375
			1.750
1-3/4	1.375	15/16-10 UN	2.156
			2.687

* Guide Shoe O.D. is the max. Bailer Assembly O.D. unless a specified O.D. is requested. The smallest O.D. Guide Shoe is supplied.

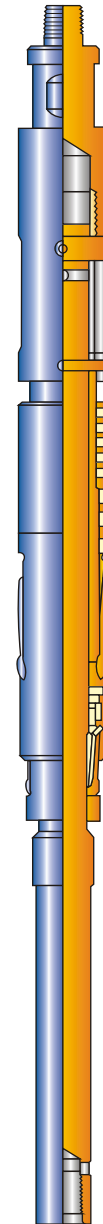


Hydrostatic Bailer

“PX” Running Tool

“PX” Running Tool is to enable X Lock to run selectively in the profile required.

“PX” Running Tools			
Actual OD (inch)	To suit Nipple Bore (inch)	F/N OD (inch)	Thread Connection Pin X Box (in. TPI)
1.720	1.875	1.375	15/16-10 UN
2.171	2.313	1.750	15/16-10 UN
2.687	2.750	2.313	1-1/16-10 UN
2.843	2.875	2.313	1-1/16-10 UN
3.250	3.313	2.313	1-1/16-10 UN
3.750	3.813	2.313	1-1/16-10 UN
4.500	4.562	3.125	1-1/16-10 UN

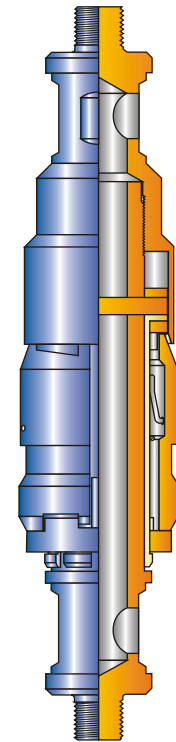


“PX” Running Tool

"B" Shifting Tool

"B" Shifting Tool is used to open or close Sliding Side Door.

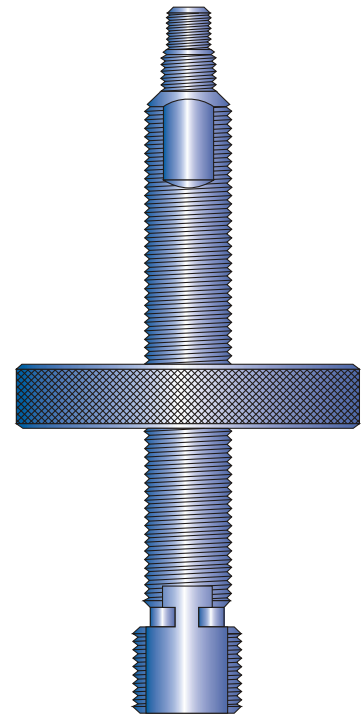
"B" Shifting Tools			
SSD ID (inch)	OD (Keys Retracted) (inch)	F/N OD (inch)	Thread Connection Pin X Box (in. TPI)
1.375	1.35	1.000	5/-11 UN
1.500	1.49	1.187	15/16-10 UN
1.625	1.62	1.187	15/16-10 UN
1.710	1.69	1.187	15/16-10 UN
1.781	1.75	1.375	15/16-10 UN
1.875	1.84	1.375	15/16-10 UN
2.125	1.97	1.375	15/16-10 UN
2.188	2.17	1.750	15/16-10 UN
2.313	2.16	1.750	15/16-10 UN
2.562	2.53	1.750	15/16-10 UN
2.750	2.73	2.313	1-1/16-10 UN
2.813	2.72	2.313	1-1/16-10 UN
3.125	3.06	1.750	15/16-10 UN
3.313	3.25	2.313	1-1/16-10 UN
3.437	3.38	2.313	1-1/16-10 UN
3.688	3.66	3.125	1-1/16-10 UN



"B" Shifting Tool

Pinning Tool

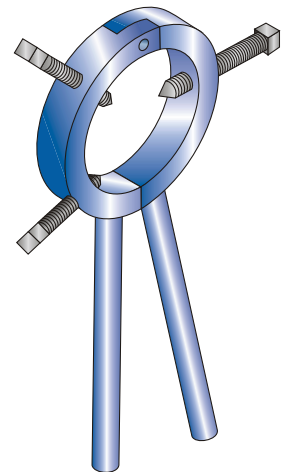
Pinning Tool
Size (inch)
1-1/2, 1-5/8, 2-1/2
3, 4, R & S



Pinning Tool

Releasing Tool

Releasing Tool
Size (inch)
2, 2-1/2, 3
4



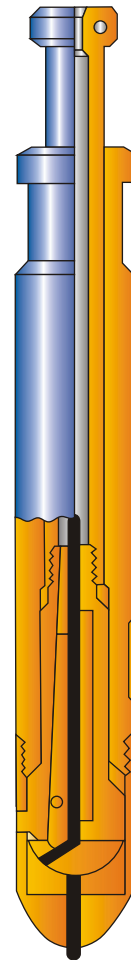
Releasing Tool

Wireline Cutter

Wireline Cutters are used to cut the wire near the rope socket and retrieve to surface with cut end of wire. It can cut all sizes of wires of large dia. by changing its internals appropriately.

Wireline Cutters	
Size OD (inch)	F/N OD (inch)
1.500	1.375
1.875	1.375
2.000	1.750

Specify Wire Size, Other sizes available on request.

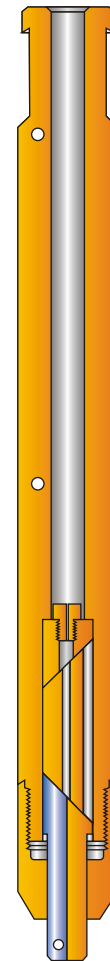


Wireline Cutter

Wireline Snipper

Wireline Snippers are used to cut / slice the wire when operator finds it necessary to cut the wire when struck in hole.

Wireline Snippers		
Actual OD (inch)	F/N OD (inch)	Wire Size (inch)
1.500	1.375	0.092 – 0.108
1.875	1.750	0.092 – 0.108
1.875	1.750	0.187 – 0.219
2.125	1.750	0.092 – 0.108
2.125	1.750	0.187 – 0.219
2.500	2.313	0.092 – 0.108
2.500	2.313	0.187 – 0.219

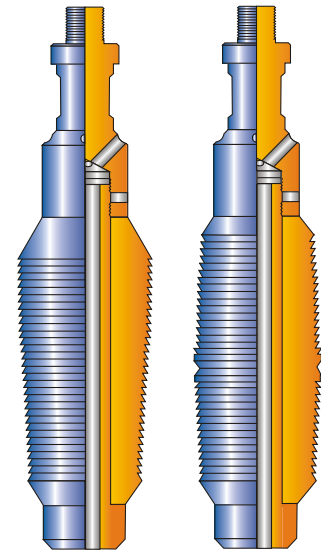


Wireline Snipper

Tubing Broach

Tubing Broach is used remove buss in the tubing. Tubing Broach is also used to remove scale, rust etc, from tubing I.D.

Tubing Broaches		
Size (inch)	F/N OD (inch)	Top Connection (inch TPI)
1.50	1.375	15/16-10 UN
2.00	1.375	15/16-10 UN
2.50	1.375	15/16-10 UN
3.00	1.750	1-1/16-10 UN
4.00	1.750	1-1/16-10 UN
5.00	2.313	1-1/16-10 UN



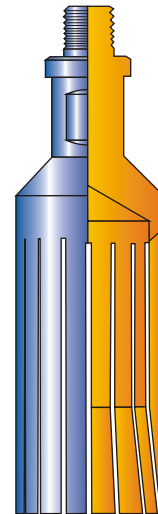
Tubing Broaches

Wireline Wirefinder

Wireline Finder is used in wireline fishing operations to locate broken wire in tubing. The fingers of slotted bottom guide pressed against tubing ID and locate the top of wire and direct it inside the finder.

Wireline Wirefinder		
Size (inch)	F/N OD (inch)	Thread Connection Pin (in. TPI)
1.500	1.375	15/16-10 UN
2.000	1.375	15/16-10 UN
2.500	1.375	15/16-10 UN
3.000	1.750	1-1/16-10 UN
4.000	1.750	1-1/16-10 UN

Other sizes available on request. Please quote max. O.D. when ordering.



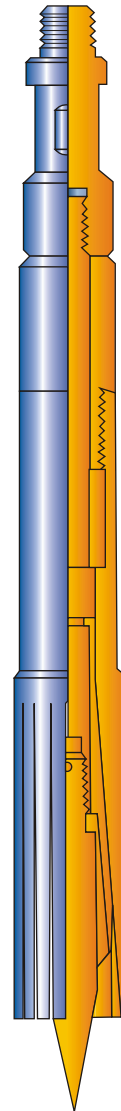
Wireline Wirefinder

Wireline Retriever

Wireline Retriever is used during wireline fishing operations to locate top of broken wireline and to bundle it.

Wireline Retriever, Slip Type					
Tool OD (inch)	To run in tubing (inch)	Can be adapted run in (inch)	F/N OD (inch)	Thread Conn. Pin (in. TPI)	Guide Type
1-1/2	1-1/2	2 – 2-1/2	1.375	15/16-10 UN	Slotted
1-1/2	1-1/2	2-3/8 – 2-7/8	1.375	15/16-10 UN	Plain
1-13/16	2-3/8	2-7/8 – 3-1/2	1.375	15/16-10 UN	Slotted

Other sizes available on request. Specify Guide Type.



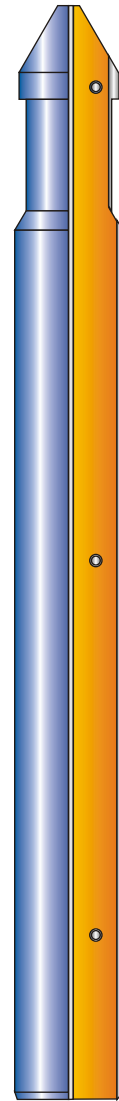
Wireline Retriever

Go-Devil

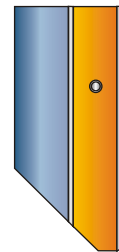
Go-Devils are used in wireline fishing operations when wireline is required to be cut. Go-Devils look similar to wireline stem and has a longitudinal slot on body with a metallic strip pinned within slot, to prevent wireline from coming out.

Go-Devil		
Size (inch)	Max. OD (inch)	F/N OD (inch)
1-1/2	1.500	1.375
1-7/8	1.875	1.750
2-1/8	2.125	1.750
2-1/2	2.500	2.312

Length 2, 3 or 5 feet. Other sizes available on request. Specify wire size.



Go-Devil (Flat Bottom)



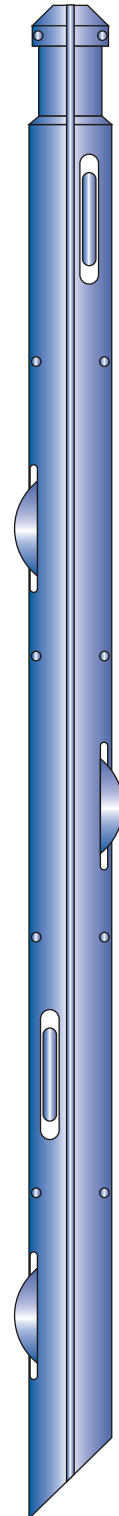
Go-Devil (45° Angled Bottom)

Roller Go-Devil

Roller Go-Devil is used mainly in deviated wells to reduce friction when tool string is run in hole. Roller Go-Devil is similar to Go-Devil with exception of Rollers. Available in various lengths and flat/angled bottom type.

Roller Go-Devil	
OD (inch)	F/N OD (inch)
1.500	1.375
1.875	1.750
2.125	1.750
2.500	2.312

Length 2, 3 or 5 feet.



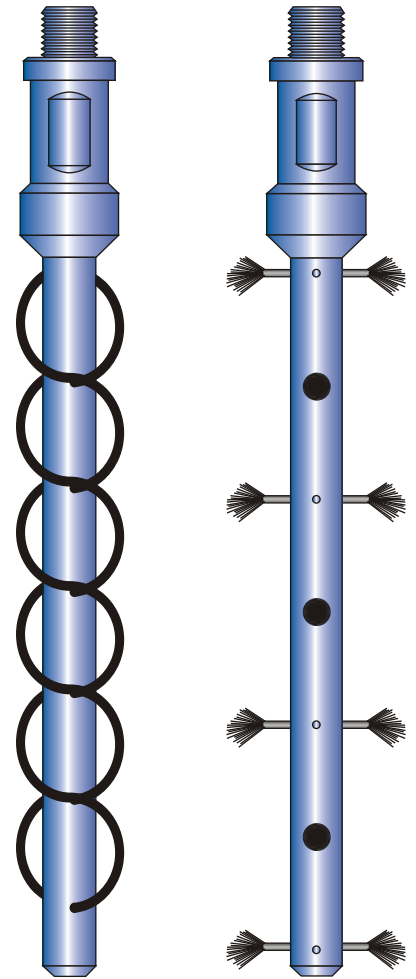
Roller Go-Devil / Roller Drop Bar

Paraffin Scratcher

Paraffin Scratchers are used to clean the paraffin deposition on the ID of tubing, nipple profile etc.

Paraffin Scratchers		
Size (inch)	F/N OD (inch)	Thread Connection Pin (inch TPI)
1-1/2 – 2-1/16	1.187	15/16-10 UN
2 – 2-1/2	1.375	15/16-10 UN
2 – 2-1/2	1.750	1-1/16-10 UN
3-1/2	1.750	1-1/16-10 UN

Other sizes available on request.



Paraffin Scratcher

Paraffin Scratcher
(Flared Type)

Wireline Grab

Wireline Grabs are used in wireline fishing operations to engaged broken wire from the tubing to retrieve to surface.

Wireline Grabs				
Size (inch)	Max. OD (inch)	F/N OD (inch)	Thread Conn. Pin X Box (in. TPI)	No. of Barb
1-1/2	1.437	1.187	15/16-10 UN	2
2 – 2-1/2	1.843	1.375	15/16-10 UN	2
3	2.718	2.312	1-1/16-10 UN	3
4 – 5-1/2	2.875	2.312	1-1/16-10 UN	3

Other sizes available on request.



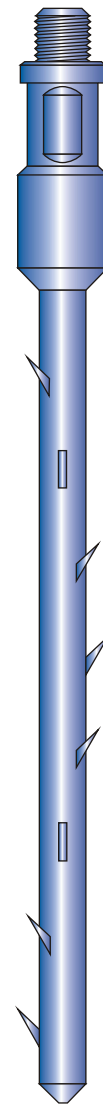
Wireline Grab

Center Spear

Center Spears are used to engage broken wire in hole when in balled condition. It is used in particular when the broken wire, in well bore, is badly balled and can not be engaged by wireline grab.

Center Spears		
Size (inch)	F/N OD (inch)	Top Connection Pin (in. TPI)
1.500	1.375	15/16-10 UN
1.875	1.750	1-1/16-10 UN
2.500	2.313	1-9/16-10 UN

Other sizes available on request. Specify guide type.



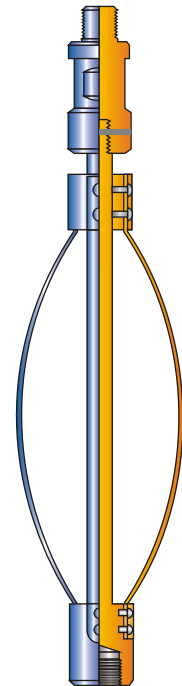
Center Spear

Bow Spring Centralizer

Bow Spring Centraliser is designed for use with slickline toolstrings whilst running gauges into the tail pipe assembly.

The Bow Spring Centraliser will keep gauges and toolstrings centralised in tail pipes ranging from 2" through 4" ID.

Bow Spring Centralizer		
OD range (inch)	F/N OD (inch)	Top Connection (in. TPI)
2 – 4	1.375	15/16-10 UN



Bow Spring Centralizer

Anti Blow-up Tool

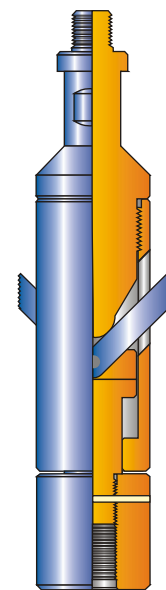
The Anti Blow-up Tool is a wireline service tool designed to be used as part of the toolstring when downhole instruments are to be deployed in to a multi zone completion well.

The Anti Blow-up Tool will help to prevent a toolstring being blown up the production string if the flow rates between zones should try to push the toolstring upwards.

The Anti Blow-up Tool has been designed so that if the lower part of the toolstring starts to lift, two arms are thrown outward to lock into the tubing wall, stopping any further upward movement. To release the arms, once engaged, you simply pick up on the wireline which lifts the upper body of the tool and closes the arms, releasing the toolstring.

The Anti Blow-up Tool is available to suit all tubing sizes from 2-3/8" through to 5-1/2".

Anti Blow-up Tools			
Tubing size (inch)	D.D. Dogs expanded	F/N OD (inch)	Connections (in. TPI)
2-3/8	2.010	1.375	15/16-10 UN
2-7/8	2.441	1.375	15/16-10 UN
3-1/2	3.068	1.375	15/16-10 UN
4-1/2	4.090	1.750	1-1/16-10 UN
5-1/2	4.892	1.750	1-1/16-10 UN



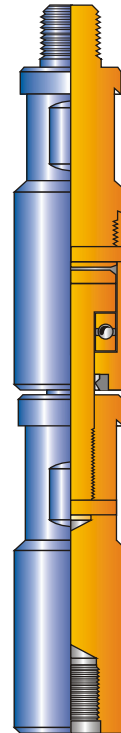
Anti Blow-up Tool

Swivel Joint

The Swivel Joint is a wireline accessory used to minimize the effect of line twist caused by subsurface devices being run. The Swivel Joint has a bearing incorporated into its design and is used to minimize rotation whilst running tubing or casing calliper surveys.

The Swivel Joint has a double fishneck feature and standard pin and box threads.

Swivel Joints		
Size (inch)	F/N OD (inch)	Connection Thread (inch TPI)
1.500	1.375	15/16-10 UN
1.875	1.750	1-1/16-10 UN
2.500	2.313	1-9/16-10 UN



Wireline Swivel Joint

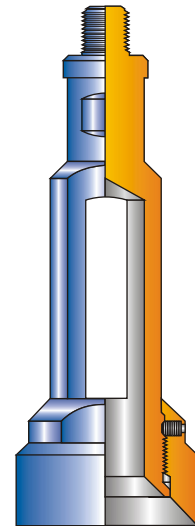
Tubing Gauge Cutter Ring Set

The Gauge Cutter Ring Set is a wireline service tool designed to operate as a standard Gauge Cutter, but with the added facility of being able to interchange different size Gauge Cutters on a standard carrier.

The Gauge Cutter Ring Set is of primary benefit where an operation requires a number of Gauge Cutters of similar diameter to be run.

This flexibility means that there is no need to keep a large inventory of different size Gauge Cutters, and a considerable cost saving can be made.

Gauge Cutter Ring Set		
Size Range (inch)	F/N OD (inch)	Top Connections (inch TPI)
1.0 – 1.5	1.187	15/16-10 UN
1.5 – 3.0	1.375	15/16-10 UN
3.0 – 6.0	1.750	1-1/16-10 UN



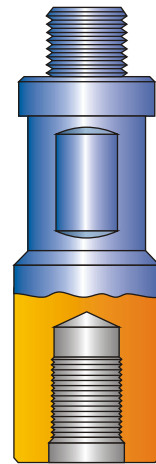
Tubing Gauge Cutter Ring Set

Wireline Crossover

Wireline Crossover are used to connect two tool string items with different threads.

Wireline Crossovers			
Max. OD (inch)	F/N OD (inch)	Thread Conn. Pin (in. TPI)	Thread Conn. Box (in. TPI)
1.500	1.375	15/16-10 UN	15/16-10 UN
1.375	1.375	15/16-10 UN	1-1/16-10 UN
2.250	1.375	15/16-10 UN	1-9/16-10 UN
2.312	1.375	15/16-10 UN	1-9/16-10 UN
1.375	1.375	1-1/16-10 UN	15/16-10 UN
1.750	1.750	1-1/16-10 UN	15/16-10 UN
2.312	1.750	1-1/16-10 UN	15/16-10 UN
2.312	2.312	1-1/16-10 UN	1-3/16-10 UN
2.312	2.312	1-1/16-10 UN	1-9/16-10 UN
1.750	1.750	1-3/16-10 UN	15/16-10 UN
2.312	2.312	1-3/16-10 UN	1-9/16-10 UN
2.250	1.750	1-3/8-10 UN	1-9/16-10 UN
2.312	2.312	1-9/16-10 UN	15/16-10 UN
2.500	2.312	1-9/16-10 UN	15/16-10 UN
2.312	2.312	1-9/16-10 UN	1-1/16-10 UN
2.312	2.312	1-9/16-10 UN	1-3/16-10 UN
2.312	2.312	1-9/16-10 UN	1-3/8-10 UN

Box by box and pin by pin crossover available on request.



Wireline Crossover

Quick Lock Connection

Quick Lock Connections provide a fast safe and strong method of attaching and releasing tools by hand. The male half is mated with the female half, then rotated through 90 deg. Whereon a spring loaded spade in the female section engages a slot in the male section and locks the assembly in place. It is released by pushing upon the spring and rotating again through 90 deg. It eliminates the chance of items backing off and does away with the need for pipe wrenches.

Advantages:

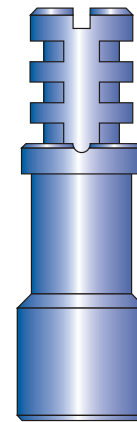
- Joint strength of Wireline Tools with Quick Lock Connection is much higher than joint strength of API Sucker Rod Connection.
- There is no need to use wrenches to make or break connection.
- It is safer & faster method of connection.
- There is no possibility of unscrewing downhole.

The Quick Lock Connections are available in following sizes:

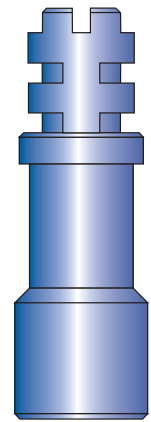
- 1-1/2
- 1-7/8
- 2-1/8

Sucker Rod Threads & Quick Lock Connections			
Thread / QLS Yield Strength	Design Tensile*	Design Shear*	Ultimate Tensile
15/16-10 SRT	47584 lbs.	68475 lbs.	72966 lbs.
1-1/16-10 SRT	63910 lbs.	79888 lbs.	96600 lbs.
1-9/16-10 SRT	148819 lbs.	195382 lbs.	228200 lbs.
1-1/2 QLS	51128 lbs.	60258 lbs.	77700 lbs.
1-7/8 QLS & 2-1/8 QLS	77605 lbs.	74409 lbs.	119000 lbs.

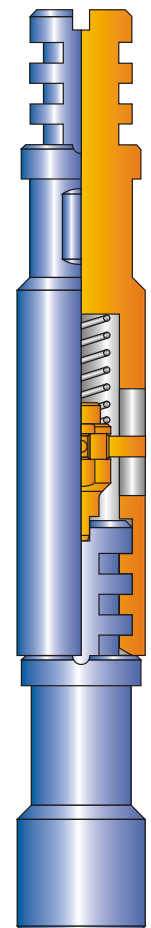
* Theoretical values for guidance only.
Suitable safety factor to be considered when in use.



Quick Lock
Male-Sub

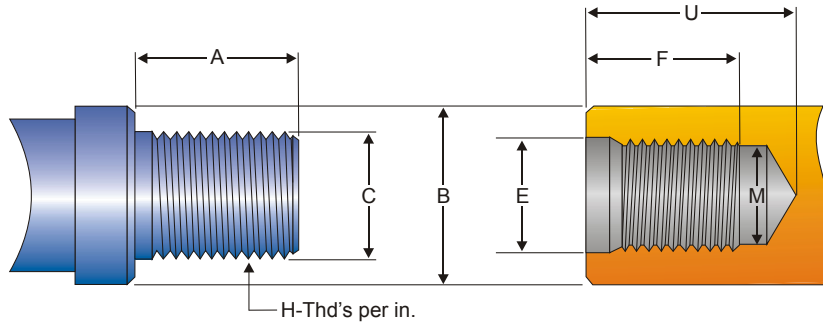


Double Shoulder
Quick Lock Male-Sub



Quick Lock Assy.

Sucker Rod Connection



Size	A	B	C	E	F	H	M	U
5/8	1.250	1.250	0.9362	0.995	1.41	10	0.830	1-3/4
3/4	1.437	1.500	1.0611	1.080	1.60	10	0.955	1-15/16
7/8	1.625	1.625	1.1861	1.205	1.79	10	1.080	2-1/8
1	1.875	2.000	1.3735	1.393	2.07	10	1.267	2-1/2
1-1/8	2.125	2.250	1.5609	1.580	2.31	10	1.455	2-3/4

Wrench Flats on Sucker Rod

Rod Size	Distance across Flats	Length of Flats
5/8	7/8	1-1/4
3/4	1	1-1/4
7/8	1	1-1/4
1	1-15/16	1-1/2
1-1/8	1-1/2	1-5/8