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OIL WELL TOOLS

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Manufacturer of original design quality well servicing products



CAVINS "ADVANCE" AUTOMATIC SPIDERS

For Casing-Tubing and Drill Pipe

2853 Cherry Avenue
Long Beach, CA 90806
Ph: (562) 424-8564
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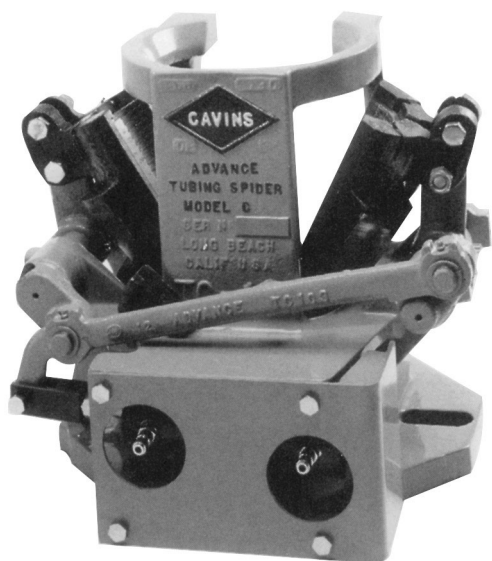


Fig. 1
Air operated "Advance" Model "C" Spider with full circle replaceable inserts.

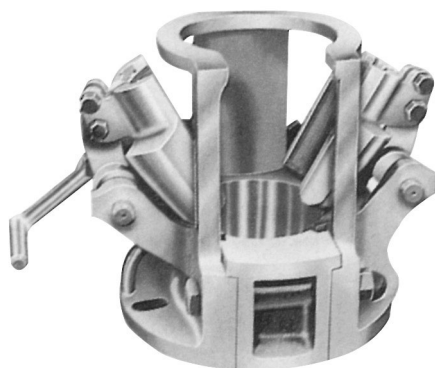


Fig. 2
Advance Mode "B" Spider (hand operated)

The "Advance" Spider developed by Cavins Oil Well Tools is considered to be the pioneer in power slips. Through years of experience and testing, many improvements have been made which make the Cavins "Advance" Spider the leader for a safe, economical, and trouble-free handling of tubular goods. Heat treated alloy steel is used throughout for the greatest possible strength and the longest wearing life with a minimum of weight. The shafts are hardened alloy steel for longer life. Replaceable steel bushings are fitted into the journal bearings. All bearings and journals are equipped with grease fittings for lubrication. Air Cylinders and Foot Valves are mist lubricated through the airstream. All Cavins "Advance" Spiders are equipped with a manually operated safety latch which may be used to positively lock the slips in their set position. Because of the low operating pressure the slips cannot release from the tubing until it has been raised by the elevators, thus guarding against a lost string in the event that the Foot Valve is tripped accidentally. The Slips, Shafts, and Air Operating Mechanisms are protected by guards to prevent damage caused by the elevators or other outside forces. Through research and field testing our engineers are constantly on the look out for additional improvements which will assure the personnel in the field of receiving the safest and most maintenance free equipment that is available.

The Cavins "Advance" Spider is available in five models, Model "B", "C", "C-HD", "F", and "G". All are designed for manual, compressed air, or hydraulic operation with the exception of the Model "G" which is available for compressed air or hydraulic operation only.

All Cavins "Advance" Spiders may be used on a rotary table with an adapter plate that fits into the square drive or pin drive master bushing, centering the Spider on the rotary table. This also permits the manually operated Spider to be rotated.

Models "B", "C", and "C-HD" Spiders may be equipped with a Gate and Slips which are relieved to pass parallel strings of tubing. If the Spider is to be used with both single and parallel strings to any extent, it is recommended that both kinds of Slips and Gates be ordered. A standard feature of all Cavins "Advance" Spiders is a specially designed Gate Section which will allow the running of an electric submersible pump cable simultaneously with any size tubing string.

CAVINS "ADVANCE" SPIDERS

SPECIFICATIONS	MODEL "B"	MODEL "C"	MODEL "CHD"	MODEL "F"	MODEL "G"
HEIGHT	15-1/2"	16-1/2"	16-1/2"	26-3/4"	35"
BASE DIMENSION	14" X 17"	16-1/2" X 18-1/2"	16-1/2" X 18-1/2"	28" X 28"	41" X 41-5/8"
GATE OPENING	4-1/4"	5-3/4"	5-3/4"	8-3/4"	13-3/4"
BOWL OPENING	4-3/4" DIA.	6-1/2" DIA.	6-1/2" DIA.	10-1/8" DIA.	15-1/2" DIA.
TUBULAR RANGE	1.315" to 3-1/2"	1.315" to 5-1/2"	1.315" to 5-1/2"	2-3/8" to 8-5/8"	2-3/8" to 13-3/8"
MAXIMUM LOAD CAPACITY	110,000 Lbs.	165,000 Lbs.	250,000 Lbs.	400,000 Lbs.	700,000 Lbs.

CAVINS "ADVANCE" SPIDERS MODEL "F" AND "G"

MODEL "F" SPIDERS AFFORD MANUAL, PNEUMATIC, and HYDRAULIC OPERATION

The CAVINS "Advance" Model "F" Automatic Spider is another industry tested and proven tool. Similar to the Model "B" and Model "C" Spiders, the Model "F" offers manual, pneumatic(air) or hydraulic operation mechanisms. The Model "F" Spider (Fig. 1) can handle tubular goods ranging in size from 2-3/8" O.D. through 8-5/8" O.D. and is favored for automation in light drilling operations or for heavy workover and production rigs. The load capacity for the Model "F" Spider is 400,000 lbs. NOW the Model "F" Spider is available also with CAVINS patented, Type "FCR" Full Circle Slips, (Fig. 2) with Replaceable Type "FCI" Inserts. The conventional, Type "TD" Slips, (Fig. 3) with Replaceable Inserts are also available.

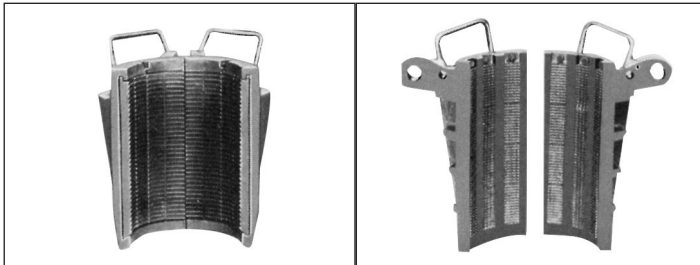


Fig. 2
"FCR" Type, Full Circle
Slips, available with "FCI"
Replaceable Inserts.

Fig. 3
"TD" Type, Conventional
Slips, available with
Replacement Inserts.

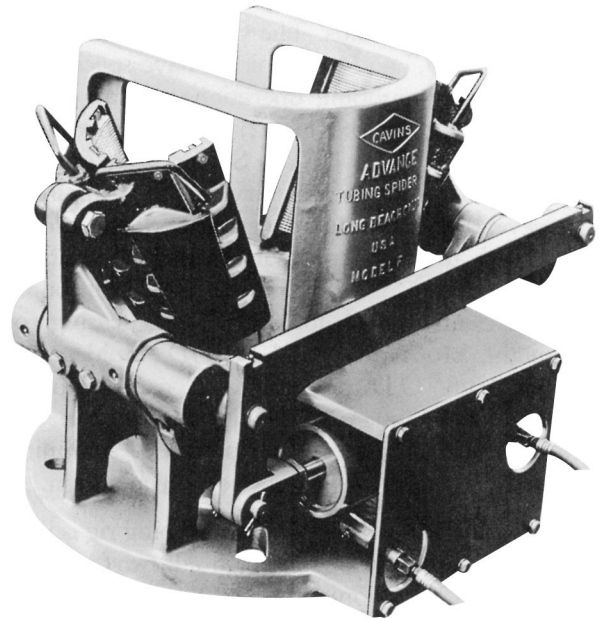


Fig. 1
Cavins Model "F" Spider, the long time favorite for dependable service now meets the cost conscious production criteria with Full Circle Slips that feature replaceable "FCI" Inserts.

MODEL "G" SPIDERS FOR HEAVY DRILLING OPERATIONS

For heavy drilling operations, up to 700,000 pounds (350 tons) hook load capacity; the CAVINS "Advance" Model "G" Automatic Spider, (Fig. 4) is recommended where heavy duty, dependable service applies. The Model "G" Spider will handle tubular goods ranging in size 2-3/8" through 13-3/8" O.D. and is available for pneumatic (air) or hydraulic operation. Like all CAVINS "Advance" Spiders, the Model "G" utilizes a minimum of moving parts for ease of operation and very minimal maintenance. CAVINS patented and proven Type "FCR" Full Circle Slips (Fig. 2 and 5) with replaceable Type "FCI" Inserts, are used for the complete range of sizes in the Model "G" Spider. The long 16" gripping area plus 360° degree, 100% contact of the Type "FCI" Inserts, makes it the most positive pipe holding device of its kind. Competition can boast only a maximum of 70% contact of the pipe. The clear advantage being greater contact area causing far less chance of damaging or crimping heavy strings of pipe. Another proven asset of the CAVINS unique design is that there is no need for costly pipe guides to attach to the spider because the Slips and Inserts withdraw completely from the Spider Bowl and when disengaged allows full protection from damage by the string when it is in motion.

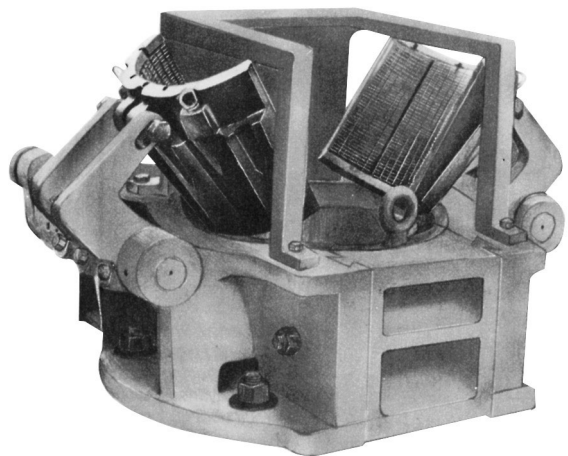


Fig. 4

Master Slip Bodies with companion Replaceable Inserts afford the greatest economy for working a wide range of tubular goods sizes.



Fig. 5

Hydraulic work over (Snubbing) services are increasingly favored, having the advantage of eliminating the need to kill the well. It lowers the cost as well as the time and problems associated with circulating salt water, mud and other fluids. The Cavins "Advance" Model "C," "C-HD," and "F" Spiders have specifically been designed for snubbing operations. It can work in its right side up position (Fig. 2) or in the inverted upside down position (Fig. 1). The Spider Body and Slips are specially designed for this service. The gripping Inserts however, are of standard design and are interchangeable with the regular Cavins Spiders. Tubular Goods from 1.315" (1" O.D. to 5-1/2" O.D. can be handled with a clear opening for 6.050" O.D. casing coupling with the Model "C" and "C-HD" Spiders. Tubular goods 2-3/8" O.D. to 8-5/8" O.D. can be run with the Model "F" Spider. All Spider models can be either hydraulic or compressed air operated. A minimum of moving parts assures a trouble-free operation.

A typical set of spiders on a snubbing rig is illustrated in Fig. 3. Four spiders may be used: two (2) in the regular (upright) position and two (2) in the inverted (snubbing) position. One regular and one inverted spider are stationary and the other regular and inverted spiders are mounted on the traveling piston. The traveling spiders are used to either push the pipe into the well or pull it from the well while the stationary spiders are used to hold the string of pipe when the traveling spiders are not engaged.

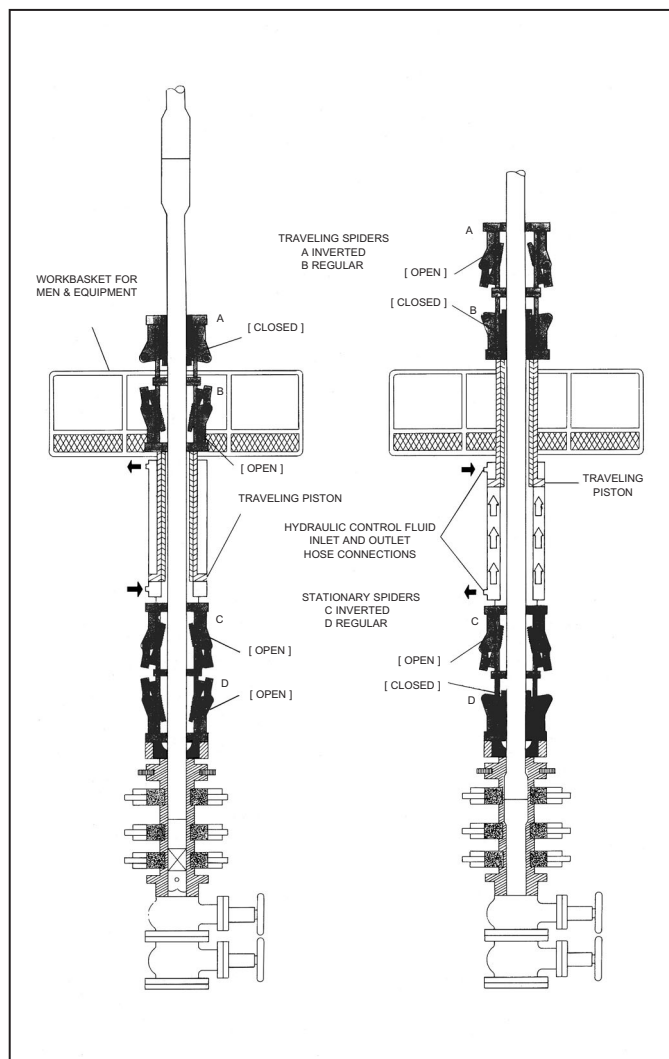


Fig. 3

A typical snubbing operation employing two inverted spiders and two regular (upright) spiders.

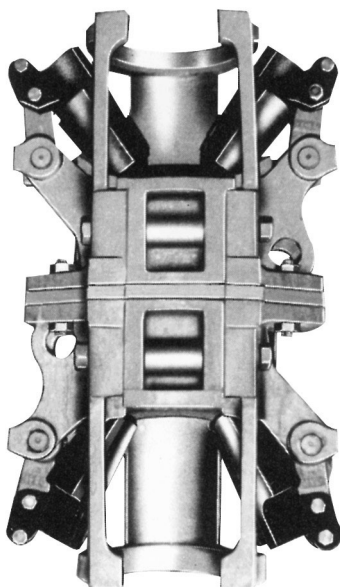


Fig. 2

A Cavins Inverted Spider and Regular Spider in opposing positions for hydraulic work over (snubbing) operation.

Fig. 1

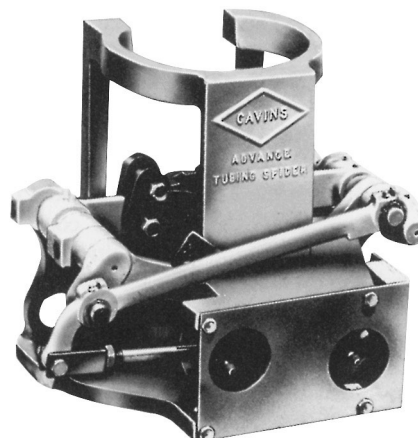
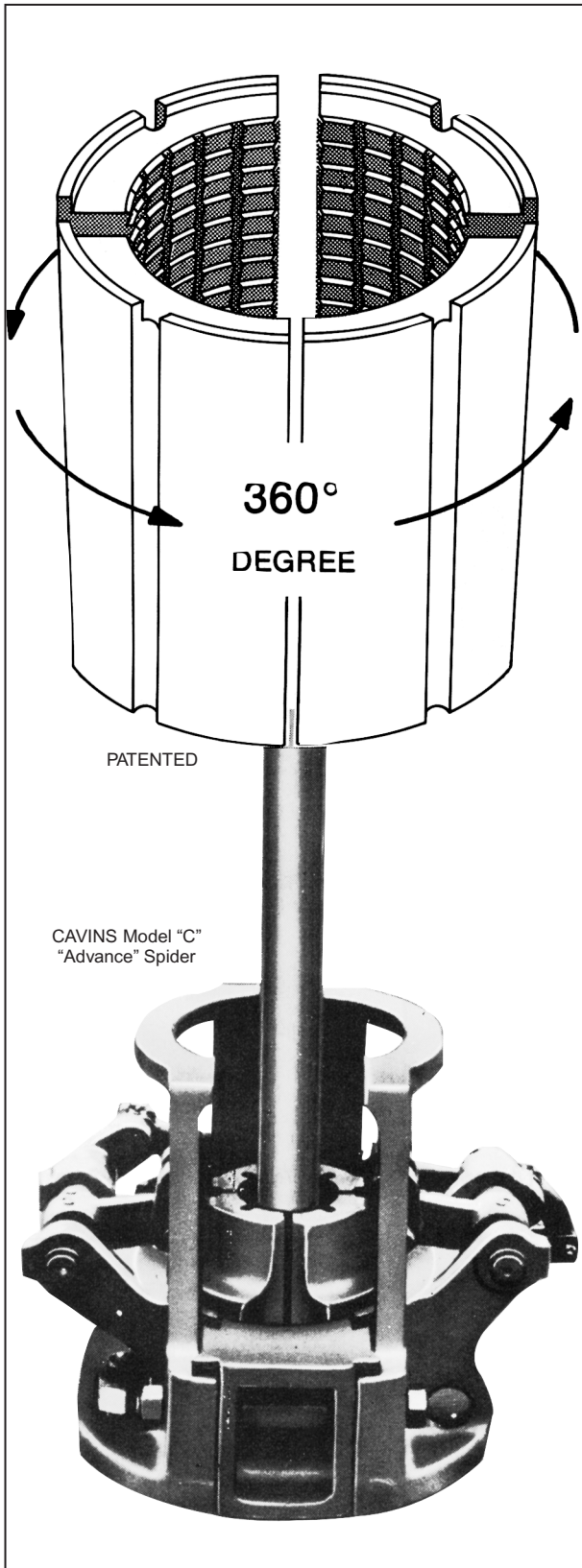


Fig. 4

Cavins Model "C-HD" Spiders will handle tubular goods in a size range of 1" to 5-1/2" O.D. with a maximum load capacity of 250,000 pounds

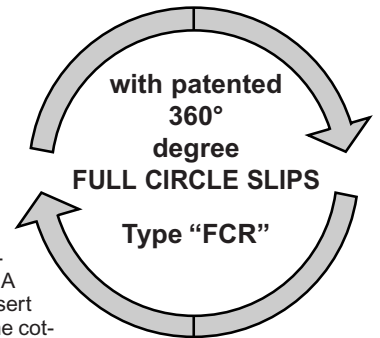
"FULL CIRCLE" SLIPS REMOVABLE INSERTS



Full Circle Slip Inserts are available for Cavins "Advance" Spiders, Models "B", "C", "C-HD", "F", and "G"

CAVINS "ADVANCE" SPIDERS

The Cavins "Full Circle" Slips, (Type "FCR") with removable inserts were designed to replace Full Circle Slips with integral teeth. The "FCR" Full Circle Slips surround the pipe 360 degrees and exert a uniform gripping power on the pipe to avoid deformation, bottle-necking, or crushing. A heavy-duty steel pin retains each insert securely in each slip body segment. The cotter key secures the retaining pin in place.



THREE DISTINCT ADVANTAGES ARE REALIZED WITH THIS NEW DESIGN:

1. It eliminates the purchase of individual slips for every size of tubular goods.
2. The Slip Body is made of tough alloy steel for maximum strength while the inserts are of case hardened steel for longer wear.
3. Since only a minimum of Slip Bodies are required to cover the range of tubular goods for each spider, the investment compares less than it would with the purchase of individual slips for each size pipe.

For the Cavins "Advance" Model "B" Spider, only one type "FCR" Slip Body is required, with removable inserts, (TYPE "FCI"). One set of (4) inserts is required for each size of Tubular Goods:

The 2-7/8", Type "FCR" Master Slip Body takes inserts for 2-7/8", 2-3/8", 2-1/16", 1.900 (1-1/2"), 1.660 (1-1/4"), and 1.315 (1") O.D. tubular goods.

To handle 3-1/2" O.D. Tubing, it is necessary to use a Type "TD" Slip Body with either Chevron, (Type "CI") Replaceable Inserts or button (Type "CBI") Replaceable Inserts.

For the Cavins "Advance" Model "C" and "C-HD" Spiders, three (3) types of "FCR" Slip Bodies are available with Removable Inserts, (Type "FCI"). One set of (4) inserts is required for each size of Tubular Goods:

The 2-1/16", Type "FCR" (-1) Master Slip Body takes Inserts for 2-1/16", 1.900" (1-1/2"), 1.660" (1-1/4") and 1.315 (1") O.D. Tubular Goods.

The 3-1/2" Type "FCR" (-2) Master Slip Body takes Inserts for 3-1/2", 2-7/8", and 2-3/8" O.D. Tubular Goods.

The 4-1/2" Type "FCR" (-3) Master Slip Body takes Inserts for 4-1/2", 4", and 3-1/2" O.D. Tubular Goods.

For the Cavins "Advance" Model "F" Spider, three (3) Type "FCR" Master Slip Bodies are available with Removable Inserts, (Type "FCI"). One set of (4) inserts is required for each size of Tubular Goods:

The 3-1/2" Type "FCR" Slip Body takes Inserts for 3-1/2", 2-7/8", and 2-3/8" O.D. Tubular Goods.

The 5-1/2" Type "FCR" Master Slip Body takes Inserts for 5-1/2", 5", 4-1/2", and 4" O.D. Tubular Goods.

The 7-5/8" Type "FCR" Master Slip Body takes Inserts for 7-5/8", 7", and 6-5/8" O.D. Tubular Goods.

For the Cavins Model "G" Spider, six (6) Type "FCR" Master Slip Bodies are available with Removable Inserts, (Type "FCI"). One set of (8) inserts is required for each of two larger sizes of Tubular Goods and one set of (4) inserts each for the other sizes:

The 3-1/2" Type "FCR" Master Slip Body takes Inserts for 3-1/2", 2-7/8", and 2-3/8" O.D. Tubular Goods.

The 5-1/2" Type "FCR" Master Slip Body takes Inserts for 5-1/2", 5", 4-1/2" and 4" O.D. Tubular Goods.

The 7-5/8" Type "FCR" Master Slip Body takes Inserts for 7-5/8", 7", and 6-5/8" O.D. Tubular Goods.

The 9-5/8" Type "FCR" Master Slip Body takes Inserts for 9-5/8" and 8-5/8" O.D. Tubular Goods.

The 11-3/4" Type "FCR" Master Slip Body takes Inserts for 11-3/4" and 10-3/4" O.D. Tubular Goods.

The 13-3/8" Type "FCR" Master Slip Body takes Inserts for 13-3/8" O.D. Tubular Goods.

SPIDERS ACCESSORIES FOR MODELS "B," "C," "F" AND "G" SPIDERS

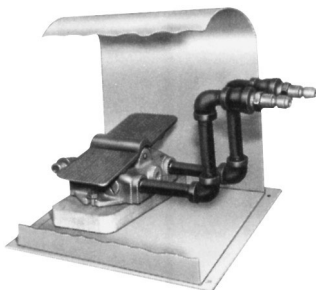
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The Foot Operated Air Control Valve only is available in a safety cover guard (Fig. 1). A combination unit is offered where it is desirable to have the Foot Valve and the Filter, Regulator and Lubricator all in one steel case, (Fig. 2)

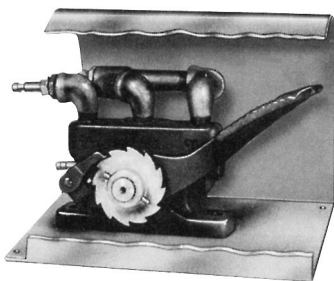
High pressure (300 P.S.I.) air hoses with Female Quick Change Connectors can be supplied in any desired length (Fig. 3).

Air Filter, (Fig. 4), with Drain (A), Pressure Regulator with Gauge (B) and Lubricator (C) assembled into one unit and supplied with Quick Change Air Coupling and Mounting Bracket. This unit can be installed near the Operator's stand or under the console. When the rig is working in extremely high temperature areas, metal bowls can be supplied in place of the plastic ones normally furnished on the Filter and Lubricator.

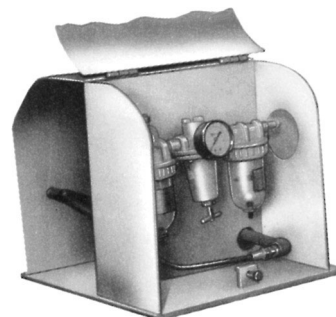
When using the Cavins "Advance" Spider on a drilling rig for making round trips, a Rotary Table Master Bushing Adapter Plate is available which is bolted to the bottom flange of the Spider. The Adapter Plate fits into any standard A.P.I. square drive (Fig. 5) or Pin Drive Master Bushing (Fig. 6).



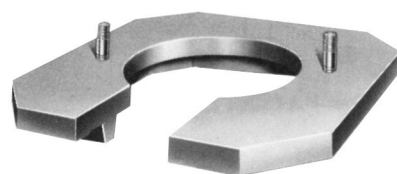
(Fig. 1) **PISTON TYPE**
Foot-Operated Valve with Safety Cover Guard and Hose Connections.



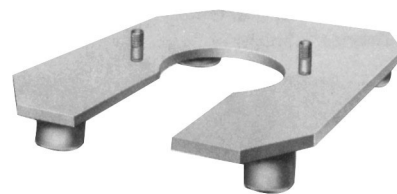
(Fig. 1B) **RATCHET TYPE**
Foot-Operated Valve, Ratchet-Type with Safety Guard Cover and Hose Connections.



(Fig. 2)
Combination Foot Valve, Pressure Regulator with Gauge and Lubricator, mounted in Portable Carrying Case. (Available with Ratchet or Piston Type Foot Valve).



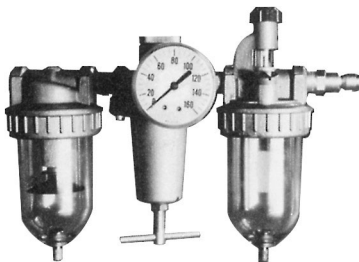
(Fig. 5)
Rotary Table Master Bushing Adapter Plate for Square Drive.



(Fig. 6)
Rotary Table Master Bushing Adapter Plate, Pin Drive.



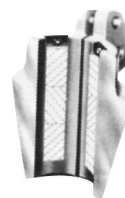
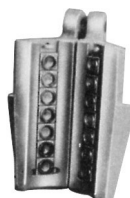
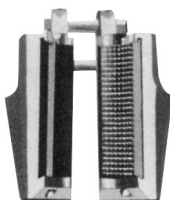
(Fig. 3)
Oil-Resistant Air Hose with Female Quick Change Couplings.



(Fig. 4)
Air Filter, Pressure Regulator with Gauge, and Lubricator Unit.

"FULL CIRCLE" SLIPS with REPLACEABLE INSERTS

The Cavins Full Circle Slip with Removable inserts has been designed to replace the Integral Full Circle Slip. The new style, type "FCR" Slip, consists of (4) slip segments, as do all other types of Cavins Slips. It has the great advantage that the Full Circle Inserts are replaceable. The Slip Body is made of tough high grade heat treated alloy steel. The Inserts are also alloy steel, case hardened. Three Master Slip Bodies are available for the Model "C" Spider. One Master Slip Body is available for the Model "B" Spider.



Type "TD" Slips with replaceable inserts for Model "B" and Model "C" Spiders. Circular Button Type Inserts are recommended for light loads. Available for either single or parallel strings. (Fig. 7)

Type "TD" Slips with replaceable "Chevron" inserts. Inserts have 35% greater contact than the Circular Button type. Recommended for the heavier tubular string load. Available for either single or parallel strings operation. (Fig. 8)

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TUBING SPIDERS



CONVERTIBLE TUBING SPIDERS 50 TON AND 100 TON

Description:

These versatile tubing spiders can easily be converted from power to manual operation. For power operation, an air cylinder actuates unitized slips. The spiders can be quickly converted to manual operation by substituting a foot pedal and foot release lever assembly for the air cylinder.

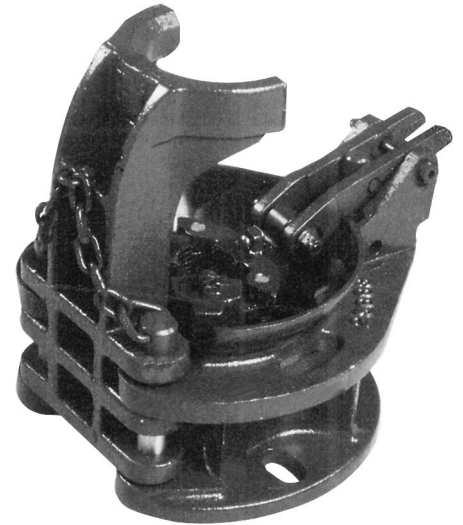
Options such as guard doors are available. Cavins/BJ fine-tooth slip inserts are available in most assembly sizes and are recommended to reduce tooth penetration. As a power tool, the convertible tubing spider can operate off the regular rig air system or from an auxiliary trailer-mounted air compressor unit.

50 TON MODEL:

Tubing size capacity is 1.315" through 3-1/2" (33.40 mm - 88.90 mm) O.D. The slips provide a full 6" (152.40 mm) of vertical gripping length around the tubing to prevent pipe crimping. The 50-ton model provides a 5-1/2" (139.70 mm) opening through the bowl. Available in air or manually operated models.

100 TON MODEL:

Tubing size capacity is 2-3/8" through 3-1/2" (60.33 mm - 88.9 mm) O.D. The slips provide a full 9" (228.60 mm) of vertical gripping length around the tubing to prevent pipe crimping. The 100-ton model provides a 5-7/8" (149.23 mm) opening through the bowl.



50 Ton Convertible Tubing Spider

SPECIFICATIONS – FOR 50-TON CONVERTIBLE TUBING SPIDERS TYPES 50-A (AIR) AND 50-M (MANUAL)

Description	Part No.	Weight Ea.	
		lb	kg
Type 50-A Air-Operated Tubing Spider with Plain Door, Less Slips, Hoses and Control Assembly	29660	173	78
Type 50-A Air-Operated Tubing Spider with Guard Door, Less Slips, Hoses and Control Assembly	29659	193	87
Type 50-M Manually Operated Tubing Spider with Plain Door, Less Slips	29662	117	53
Type 50-M Manually Operated Tubing Spider with Guard Door, Less Slips	29661	137	62

SPECIFICATIONS – FOR 100-TON CONVERTIBLE TUBING SPIDER TYPES 100-A (AIR) AND 100-M (MANUAL)

Description	Part No.	Weight Ea.	
		lb	kg
Type 100-A Air-Operated Tubing Spider with Guard Door, Less Slips, Hoses and Control Assembly	37841	257	115
Type 100-M Manually Operated Tubing Spider with Guard Door, Less Slips, Hoses and Control Assembly	37843	200	91

SLIP ASSEMBLIES FOR TYPES 50-A (AIR) AND 50-M (MANUAL) TUBING SPIDERS

Description	Part No.	Slip Insert No.	Qty.	Weight Ea.	
				lb	kg
1.315" (33.40 mm) O.D. Slip Assembly	29773	29259	6	50	23
1.660" (42.16 mm) O.D. Slip Assembly	29772	29258	6	49	22
1.900" (48.26 mm) O.D. Slip Assembly	29771	29257	6	48	22
2"-2-1/16" (50.8 mm-52.39) O.D. Slip Assembly	29770	29256	6	46	21
2-3/8" (60.33 mm) O.D. Slip Assembly	29769	29255	6	39	18
2-7/8" (73.03 mm) O.D. Slip Assembly	29693	24773	6	38	17
3-1/2" (88.9 mm) O.D. Slip Assembly	29692	24774	12	37	17

*All except 3-1/2" (88.9 mm) Slip Assembly are made out of 2-7/8" (973.03 mm) Slip Bodies.

SLIP ASSEMBLIES FOR TYPES 100-A AND 100-M TUBING SPIDERS

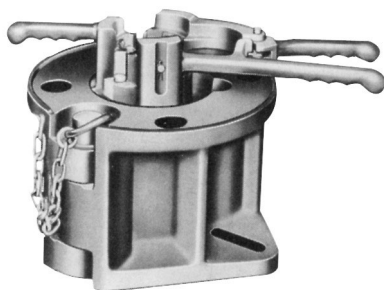
Description	Part No.	Insert P/N	Qty.	Weight Ea.	
				lb	kg
2-3/8" (60.33 mm) O.D. Slip Assembly	35110	29255	9	45	20
2-7/8" (73.03 mm) O.D. Slip Assembly	35111	24773	9	45	20
3-1/2" (88.9 mm) O.D. Slip Assembly	35112	24774	18	45	20

CONTROL ASSEMBLIES FOR AIR SPIDERS

Description	Part No.	Weight Ea.	
		lb-oz	kg
Standard Air Control Assembly complete with single pedal control valve with base plate and fittings	30362	31-4	14
Air Control Assembly complete with single pedal control valve with base plate and fittings, filter, lubricator, regulator with gage and cover	30364	60-0	27

HOSE ASSEMBLIES WITH FITTINGS FOR ALL TUBING SPIDERS

Description	Part No.	Weight Ea.	
		lb-oz	kg
Air Line Hose Assembly (1/4" x 12'-6.35 MM x 3.66 m)– Air Supply to Control, 1 required	30049	4-8	2
Air Line Hose Assembly (1/4" x 12'-6.35 mm x 3.66 m)– Control to Spider, 2 required	30366	4-8	2
Air Line Hose Assembly (1/4" x 15'-6.35 mm x 4.57 m)– Air Supply to Control, 1 required	30049-15	5	2.3
Air Line Hose Assembly (1/4" x 15'-6.35 mm x 4.57 m)– Control to Spider, 2 required	30366-15	5	2.3
Air Line Hose Assembly (1/4" x 25'-6.35 mm x 7.62 m)– Supply to Control, 1 required	30049-25	7	3.2
Air Line Hose Assembly (1/4" x 25'-6.35 mm x 7.62 m)– Control to Spider, 2 required	30366-25	7	3.2



TS 100

TS-100 TUBING SPIDER

The Baash-Ross TS-100 Tubing Spider is available in two body sizes for running a wide range of tubing sizes.

The 3-1/2" Tubing Spider accommodates single or dual strings of tubing. When running single strings, the spider will handle any size tubing up thru 3-1/2" O.D. When running dual strings, the main tube, which is held by the slips, can be any size from 1.050" O.D. thru 3-1/2" O.D. and the auxiliary tube can be any size up thru 1.660" O.D.

The 5-1/2" Tubing Spider can handle single, double, or triple strings. When running single strings the spider will handle from 3-1/2" up to 5-1/2" O.D. tubulars. When running dual strings, the main tube, which is held by the slips, can be from 3-1/2" thru 5-1/2" O.D. and the auxiliary tube can be any size up to 1.900" O.D. When running triple strings the main tube is 3-1/2" O.D. and the auxiliary tubes can be any size thru 1.900" and 1.660" O.D. respectively.

Each body section is recessed to hold liner segments so stresses of supporting the tubing are transmitted directly to the slip body. The liner segments can be replaced by removing a single pin and sliding out the segments.

The latch automatically locks the slips around the tubing as the handles are closed. The latch opens when the operator spreads the handles. The spider bowl is made in two halves, fastened together by a hinge pin and removable lock pin. This design combines strength with ease of operation and removal.

For running a single string of tubing, both halves of the bowl are smooth-bored and identical. For a double string, or triple string, one half of the bowl is smooth-bored while the other half is slotted to receive the auxiliary tube or tubes. The bowl will fit directly into a API standard square in the rotary table, or it can be bolted to a wellhead flange thru the slots provided.

3-1/2" TS 100 TUBING SPIDER

O.D. Size Inches	3-1/2" Complete with slip liners & bowl			
	Single string		Double string	
	Part no.	Wt Lbs	Part no.	Wt Lbs
Bowl only	7502-100	168	7502-101	166
Complete				
1.050	7502-100-H	237	7502-101-H	235
1.315	7502-100-A	235	7502-101-A	233
1.660	7502-100-B	234	7502-101-B	233
1.900	7502-100-C	232	7502-101-C	230
2.000	7502-100-J	230	7502-101-J	228
2-1/16	7502-100-G	228	7502-101-G	226
2-3/8	7502-100-D	226	7502-101-D	224
2-7/8	7502-100-E	225	7502-101-E	223
3-1/2	7502-100-F	223	7502-101-F	221

5-1/2" TS 100 TUBING SPIDER

O.D. Size Inches	5-1/2" Complete with slips, tong & bowl					
	Single string		Double string*		Triple string**	
	Part no.	Wt Lbs	Part no.	Wt Lbs	Part no.	Wt Lbs
Bowl only	7502-103	200	7502-105		7502-106	
Complete						
3-1/2	7502-103-A	300	7502-105-A	300	7502-106-A	300
4	7502-103-B	284	7502-105-B	284		
4-1/2	7502-103-C	275	7502-105-C	275		
4-3/4	7502-103-D	270	7502-105-D	270		
5	7502-103-E	264	7502-105-E	264		
5-1/2	7502-103-F	253	7502-105-F	253		

* Up to and including 5-1/2" x 1.900"

** 3-1/2" x 1.900" x 1.660"

SLIP LINERS FOR 3-1/2" TS-100 TUBING SPIDERS

O.D. Size Inches	Single String and Double String*		
	No. Req'd.	Part no.	Total Wt Lbs
Slip Assy	1	7502-104	43-3/4
3-1/2	9	7502-A-5069	11-1/4
2-7/8	9	7502-A-5070	13-1/2
2-3/8	9	7502-A-5071	14-5/8
2-1/16	9	7502-A-5072	18
2.000	9	7502-A-5073	19-1/8
1.900	9	7502-A-5074	20-1/4
1.660	9	7502-A-5075	22-1/2
1.315	9	7502-A-5076	23-3/8
1.050	9	7502-A-5077	13-1/2

*UP TO AND INCLUDING 3-1/2" X 1.660"

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SLIPS FOR 5-1/2" TS-100 TUBING SPIDERS

O.D. Size Inches	Single string			Double string*		Triple string**	
	No. Req'd.	Part no.	Total Wt Lbs	Part no.	Total Wt Lbs	Part no.	Total Wt Lbs
Tong Assy.	1	7502-70	29	7502-78	29	7502-107	29
Slips							
5-1/2	4	7502-A-26	49	7502-A-106	49		
5	4	7502-D-26	60	7502-D-106	60		
4-3/4	4	7502-B-26	66	7502-B-106	66		
4-1/2	4	7502-C-26	71	7502-C-106	71		
4	4	7502-G-26	80	7502-G-106	80		
3-1/2	4	7502-F-26	96	7502-F-106	96	7502-A-222	96



BAASH-ROSS® Open End Tubing Spiders

- The Open End Tubing Spider is available in two basic sizes; one to accommodate slips for 3-1/2" O.D. tubing or smaller, and the other to handle 4-1/2" O.D. tubing or smaller.
- It is placed around the tubing by lifting out a removable end gate, sliding the bowl into place and dropping the end gate back into position, where it is locked with a bolt.
- The spider is made of heat-treated steel and is rated at 100-ton capacity.
- The four-slip segments of the tubing spider are firmly hung to a hinged tong by dovetail grooves in their backs which mate with tongues inside the tong body.
- An automatic tong latch for locking the slips in position can only be opened by the handles.
- The slips are 10" long and provide a large gripping area. Because they set as a unit, slip pressure is uniform at all points. Narrow slip backs eliminate sticking and compensate for wear of the spider body.

TABLE NO. 1

3-1/2" Open End Tubing Spider Complete (Double String)

2", 2-1/2" or 3" production tube with 1-1/4" power tube
(the slips hold production tube only)

Nom. Tubing Size to Hold with Power Tube	2" x 1-1/4"	2-1/2" x 1-1/4"	3" x 1-1/4"
API Tubing Size to Hold with Power Tube	2-3/8" x 1.660"	2-7/8" x 1.660"	3-1/2" x 1.660"
Wt. Per Set Complete lbs.	218	220	225
Part Number Complete	7502-67-A	7502-67-B	7502-67-C

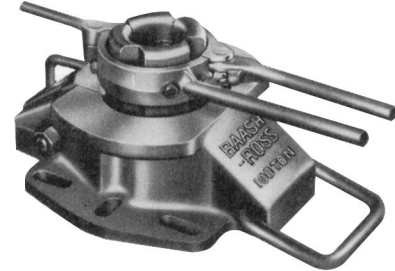


FIG. 1 - The Open End Tubing Spider, complete, showing Unitized Slip Assembly set in Body.

TABLE NO. 2

4-1/2" Open End Tubing Spider Complete (Double String)

2-1/2" production tube with 1-1/4" power tube,
3" production tube with 1-1/2" power tube
(the slips hold production tube only)

Nom. Tubing Size to Hold with Power Tube	2-1/2" x 1-1/4"	3" x 1-1/2"
API Tubing Size to Hold with Power Tube	2-7/8" x 1.660"	3-1/2" x 1.900"
Wt. Per Set Complete lbs.	228	219
Part Number Complete	7502-65-A	7502-65-B

To order — Specify: (1) Spider Open End. (2) Part numbers. (3) Size of body or bowl (3-1/2" or 4-1/2"). (4) If single or double strings.

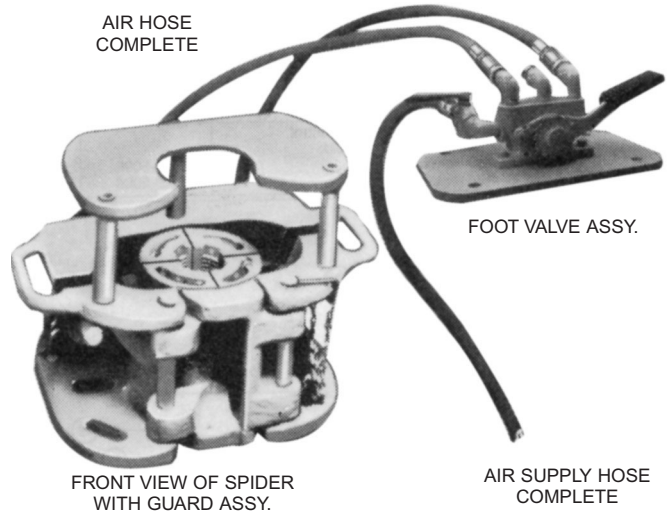
Power Tubing Spiders

● WEB WILSON® Model PM Power Tubing Spiders

- These power spiders are available to handle the following tubing sizes: 1.315", 1.660", 1.900", 2", 2-1/16", 2-3/8", 2-7/8", and 3-1/2". Only two sizes of slips (bodies) are required for handling tubing up to 3-1/2" O.D.
- One size slip will handle tubing from 1.315" O.D. to 2-7/8" O.D. equipping with proper size insert. The other size slip handles 3-1/2" O.D. using the 3-1/2" insert.
- Two spider types are available: hydraulic and pneumatic. Both are rated 50-ton maximum capacity. Pneumatic spiders operate on air pressure from 40 to 50 psi. Hydraulic powered spiders operate on maximum recommended working pressure of 150 psi.
- A hinged door permits installation without "stripping" over the tubing. Slip inserts are easily changed from one size to another; interchangeable inserts permit the assembly to work for many tubing sizes.
- The slip inserts are carefully machined from steel alloy.

To order — Specify: (1) Tubing Spider, Power. (2) Part number. (3) Hydraulic or pneumatic. (4) Tubing size. (5) Optional equipment.

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FRONT VIEW OF SPIDER WITH GUARD ASSY.

AIR SUPPLY HOSE COMPLETE

TABLE NO. 3
WEB WILSON Model "PM" Power tubing Spider
50-Ton Capacity

Description	Part Number	Wt., Lbs. Each
Air Operated Spider Complete w/Control Assembly and Hoses w/Slip Bodies to Hold: 1.315"-2-7/8" O.D. (Less Inserts)	8529-5095	251
3-1/2" O.D. (Less Inserts)	8529-5097	251
Hydraulically Operated Spider Complete w/Control Assembly and Hoses w/Slip Bodies to Hold: 1.315"-2-7/8" O.D. (Less Inserts)	8529-5096	259
3-1/2" O.D. (Less Inserts)	8529-5098	259



RS Tubing Tong

RS HYDRAULIC TUBING TONG

Description:

The Model RS is a gate-type tong that incorporates a four way control valve to reverse the tong without roll-over. This reversible model does not include a positioner and uses stiff arm installation. As an option, the Model RS is available with positioner and a roll-over hanger.

Operational features:

Can deliver and maintain 12 HP (8.95 kw) continuously when required without overload or strain. The control valve can be operated from either front or rear control levers. The heavy-duty transmission handles high torque without overload or strain. Quick change jaw and bushing assemblies accommodate curved face dies as well as straight dies. Choice of standard or high-torque motor.

Size range:

1.050"-4-1/2" (26,7-114,3 mm)

BTS REVERSIBLE SHORT LEVER, GATE TYPE HYDRAULIC POWER TONG

Description:

The BTS combines the greater horsepower speed and torque of other Cavins/BJ power tubing tongs. In addition, the model BTS has special space-saving qualities for smaller rigs used for slim hole production and workover jobs. The overall saving in length totals 10" (254 mm).

Size range:

1.050" to 4-1/2" (26,7-114,3 mm)

HYDRATORC® POWER TUBING TONGS

These part numbers are for power tongs complete less jaws and bushings, less hoses and quick-connect couplings.

Model	Rigid Hanger Less Positioner			Roll-over Hanger with Positioner		
	Part no.	Weight Ea.		Part no.	Weight Ea.	
		lbs	kg		lbs	kg
RS	34891	580	263	34892	590	268
BTS	30072	650	295	30072-2	659	299
CTS	35089	580	263	35090	590	268

These part numbers are for power tongs complete with high-torque duty motor less jaws and bushings, less hoses and quick-connect couplings.

RS	34891-1	580	263	34892-1	590	268
BTS	30072-12	650	295	30072-11	659	299
CTS	35089-1	580	263	35090-1	590	268

SUPER-POWAI RMATIC® POWER TONGS

These part numbers are for power tongs complete less jaw and bushing, less hoses and quick-connect couplings.

SA	27550-2	572	259	27550	575	261
BTA	30580-2	652	266	30580	655	297

CTS REVERSIBLE, STANDARD LENGTH GATE-TYPE TUBING AND CASING TONG

Description:

Similar to the Model RS except that the front end has been modified to handle pipe from 2-3/8" tubing to 5-1/2" casing. Quick-change jaws and bushing assemblies take either curved or straight dies.

Size range: 2-3/8" to 5-1/2" (60,3-139,7 mm)

Specifications RS, BTS, CTS Tongs:

	Standard Motor	High Torque Motor
Torque in Hi Gear, ft-lb @ 2000 psi (140 bar)	1200 ft-lb (1627 Nm)	1700 ft-lb (2305 Nm)
Torque in Lo Gear, ft-lb @ 2000 psi (140 bar)	4650 ft-lb (6305 Nm)	6650 ft-lb (9017 Nm)
Speed in Hi Gear, RPM @ 30 GPM (113.6 l/min)	83 RPM	68 RPM
Speed in Lo Gear, RPM @ 13 GPM (49.2 l/min)	21 RPM	18 RPM

SA REVERSIBLE, STANDARD-LENGTH, GATE-TYPE, AIR POWERED TONG

Description:

High-Torque vane-type 9 HP (6,7 kw) air motor. Fully enclosed heavy-duty transmission handles high torque without overload or strain. Positive front-end chain drive. Four way valve and manifold provide reverse without roll-over. Also available as BTA Model, retaining the same features as the SA but having a 10" (254 mm) shorter length.

Size range: 1.050" to 4-1/2" (26,7-114,3 mm)

Specifications SA, BTA:

Maximum Torque in Hi Gear, ft-lb @ 150 psi (10.34 bar)	1660 ft-lb (2250 Nm)
Maximum Torque in Lo Gear, ft-lb @ 150 psi (10.34 bar)	6500 ft-lb (8814 Nm)
Speed in Hi Gear, RPM	90 RPM
Speed in Lo Gear, RPM	24 RPM

Model CH (not shown)

Closed head hydraulic powered tong with reversible motor

Design Features: Jaws turn over to reverse tong. Choice of standard or High Torque motor to provide desired torque. Five multiple-size-range jaws are designed with convex die contact surfaces for positive even pressure grip equally spaced around the tubing circumference.

Operational Features: A tandem control valve controls both tong operation and lift cylinder. Balanced spring suspension for easy handling and positioning. Torque valve adjusts tong torque to tubing joint requirements.

Optional Equipment: Closed-Head Back-up; Operator can choose either of two positions. He can straddle couplings and make up both threads on API tubing when going into hole or he can move back-up closer to tong when gripping coupling. Gripping system identical to Model CH tong but is operated manually.

HOW TO ORDER TONGS COMPLETE

- 33135-7 "CH" Tong Complete with 2-3/8"-3-1/2" Jaw and Jaw Holder Assembly
- 33135-16" CH" Tong Complete with 2-3/8"-3-1/2" Jaw and Jaw Holder Assembly and High Torque Motor

2853 Cherry Avenue
Long Beach, CA 90806
Ph: (562) 424-8564
Fax: (562) 595-6174



OPTIONAL EQUIPMENT FOR POWER TUBING TONGS



JAW AND BUSHING ASSEMBLIES—Hydratorc® Power Tongs Models RS and BTS and Super-Powairmatic® Models SA and BTA

Pipe size		Assembly Type	Part No.	Curved Face Die	Straight Die	Weight Ea.	
In.	mm					lb-oz	kg
1.050	26.67	Jaw	23446-1		6472	6-0	2.72
1.050	26.67	Bushing	23447-1		6472	12-0	5.44
1.135	33.40	Jaw	29373-1	29378		6-0	2.27
1.315	33.40	Bushing	29374-1	29378		12-0	5.44
1.660	42.16	Jaw	29310-1	29313		5-12	2.61
1.660	42.16	Bushing	29307-1	29313		11-8	5.22
1.750	44.45	Jaw	29802-1	29313		5-9	2.52
1.750	44.45	Bushing	29801-1	29313		11-5	5.13
1.900	48.26	Jaw	29309-1	28312		5-4	2.38
1.900	48.26	Bushing	29306-1	29312		11-0	4.99
2 & 2-1/16	50.8 & 52.39	Jaw	29308-1	29311		5-0	2.27
2 & 2-1/16	50.8 & 52.39	Bushing	29305-1	29311		10-2	4.59
2-3/8	60.33	Jaw	27477-1	27494-1		4-12	2.15
2-3/8	60.33	Bushing	27645-1	27494-1		10-8	4.76
2-7/8	73.03	Jaw	27481-1	27498-1		4-8	4.76
2-7/8	73.03	Bushing	27660-1	27498-1		10-8	4.76
3-1/2	88.9	Jaw	17912-1		6473	4-8	2.04
3-1/2	88.9	Bushing	17913-1		6473	9-12	4.42
4	101.6	Jaw	23624-1		6473	4-0	1.81
4	101.6	Bushing	23623-1		6473	8-0	3.63
4-1/2	114.3	Jaw	24553-1		24554	3-0	1.36
4-1/2	114.3	Bushing	24552-1		24554	5-0	2.27

ON-OFF DEVICE FOR GATE-TYPE POWER TONGS

This air-operated tool increases tubing handling efficiency by moving gate-type Hydratorc or Super-Powairmatic power tongs onto or off the tubing automatically. Utilizes regular rig air source. Power On-Off Device Complete with Standard Hand Control – Part No. 29637-1 (Part No. 30237-Optional Foot Control).

SEMI-AUTOMATIC POSITIONER FOR GATE-TYPE POWER TONGS

This optional feature consists of a control valve to line up the opening accurately and quickly. The Semi-Automatic Positioner can be included in any Hydratorc or Super-Powairmatic gate-type power tong.

HOSES AND QUICK-CONNECT COUPLINGS For Hydratorc® Power Tongs

Number Required	Part Name	Part Number	Weight Lbs.
2	1" x 15' Hydraulic Hose	991010-180	18
2	1" Coupling	942029-16	4

FOR SUPER-POWAIRMATIC TONGS

Number Required	Part Name	Part Number	Weight Lbs.
1	3/4" x 50' Air Hose Assembly	950123-3802	34
1	1" x 50' Air Hose Assembly	950124-3803	43

CLOSED HEAD "CH" TONG

Part No. 60210	Hydraulic Lift Assembly
Part No. 60250	Stiff Arm Assembly

BACK-UP ATTACHMENT FOR CLOSED-HEAD "CH" POWER TONG ONLY

COMPONENTS	NO. Req'd	1-5/16-2-1/16	2-3/8-3-1/2	3-1/16-4	4-4-3/4	5-6-1/16
Back-Up Assy.	1	32947	32947	32947	33647	33647
Back-Up Jaw Assy.	5	33706	33707	33708	—	—
Back-Up Jaw	5	—	—	—	33655	33056



BACK-UP TONGS FOR GATE-TYPE POWER TONGS

Design Features: Cavins/BJ Type MS back-up tongs have T-head latch with 3-jaw design and 2-step and 3-step lug jaw construction to assure close grip on both coupling and tool joint without adjustment.

HOW TO ORDER TONG COMPLETE

30430-110 "MS" Back-Up Attachment Complete with 2-3/8" 3.668 Lug Jaw Assembly

Part No.	Part Name	Weight (lbs.-oz.)
30430	Back-Up Attachment Complete, Less Lug Jaw (1.900"-2-1/16" & 2-3/8"-4-1/2")	47-0
31134	Back-Up Attachment Complete, Less Lug Jaw (4-1/2"-6-1/8")	53-14

REPLACEMENT PARTS – "MS" BACK-UP ATTACHMENT

Number Required	Part No.	Part Weight Name	(lbs.-oz.)
1	34314-1	1.900"-2-1/16" Lug Jaw Assembly**	—
1	30422-6	2-3/8"-3.668" Lug Jaw Assembly**	6-0
1	30424-6	3-1/2"-4-1/2" Lug Jaw Assembly**	7-14
1	33917-6	4-1/2"-5-1/4" Lug Jaw Assembly**	—
1	31139-6	5.200"-6-1/8" Lug Jaw Assembly**	4-8
1	6267	1.900"-4-1/2" Short Jaw	2-0
1	31130	4-1/2"-6-1/8" Short Jaw	2-0
1	31135	4-1/2"-6-1/8" Latch Jaw	2-0
1 (2*)	5206	1.900"-4-1/2" Latch Spring	0-2
2 (5*)	13494	1.900"-4-1/2" Hinge Pin	0-6
4 (5*)	939672-18	1.900"-4-1/2" Cotter Pin	0-1
1	28622-5	Outer-Inner Sleeve Assembly (1.900"-6-1/8")	23-0
1	28622	Outer Sleeve	13-0
1	28623	Inner Sleeve	10-0
2	945031-64	Suspension Spring	0-4
1	30591	Leveling Screw	0-3
1	28624	Lever	8-0
1	30572-1	Latch	1-8
1	30573	Long Jaw Spring	0-2
1	30574	Short Jaw Spring	0-2
2	30575	Lever Hinge Pin	0-7
1	30421-1	Long Jaw Assembly**	12-0
2	30359	Toggle Pin (Long) w/Chain	1-0
1	30359-1	Toggle Pin (Short) w/Chain	0-8
2	6209	Tong Die	0-3

*No. Req'd for 4-1/2"-6-1/8" Range **Each Assy. Includes Lug Jaw & 6209 Die

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POWER TONGS

2853 Cherry Avenue
Long Beach, CA 90806
Ph: (562) 424-8564
Fax: (562) 595-6174

CH-8000

The Cavins/BJ CH-8000 is designed for fast and uniform make-up and break-out of tubular connections on production, workover jobs and during slimhole drilling operations. This double motor, chain-driven tong, has no gear transmission and clutches. The CH-8000 features five multi-range jaw assemblies to handle all tubing and coupling sizes from 1-5/16" through 6-1/16" O.D. This compact and powerful closed-head power tubing tong, offers in this design a combination of Cavins/BJ's past experience with today's technology. The extensive CH-8000 field testing done to date has shown that the elimination of gear train, clutches and the oil lubrication front end have drastically reduced the amount of maintenance which is required on other types of previously designed power tongs. After 15 continuous months of operation 12 hours per day, 6 days per week, this tong experienced no downtime.

Features:

Shift on the fly capability. Separate speed and torque motors allow the tong to be shifted in/out of high torque mode easily and smoothly. No more need to overhaul or replace transmissions. Low maintenance and high reliability. Routine maintenance is limited to 15 minutes per week for lubrication. No oil bath to leak. Jaw reversal is an easy 5 minutes. A unique hinged top cover provides access to the jaws so they can be reversed for going back into the hole.

Assembly numbers:

CH-8000 Hi-speed : 250100
CH-8000 Hi-torque : 250100-1
Hydr. lift cylinder : 60210
Manual back-up : 250111
Hydr. back-up : 250111-1

GT-8000

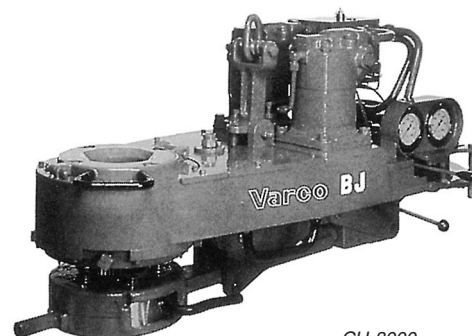
The 8000 Series tubing tong family has been extended to include the Gate Type Tong, which incorporates many of the features of the CH-8000 in its small compact frame. This new hydraulic tong is the Cavins/BJ GT-8000.

Features:

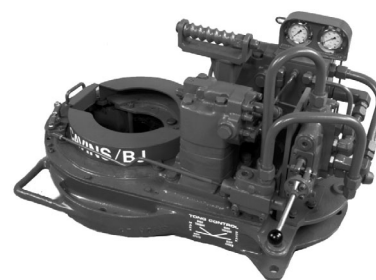
Incorporates the same simple motor hydraulic drive circuit as utilized in the CH-8000. Reversible clamping system eliminates roll-over which occurs in other competitive tools. Safety door prevents rotation when door is open. The brake band is easily adjustable from outside of the tong. Sealed bearings eliminate the use of cam rollers and reduce maintenance. The hydraulic drive system is mounted on a detachable frame for simplified maintenance. The make-up torque can be pre-set by adjusting a built-in pressure relief valve which prevents tubular damage.

Assembly number:

GT-8000 : 202100-1
Manual Back-up : 200880-S



CH-8000



GT-8000

JAW ASSEMBLIES CH-8000

Size Inch	Size mm	Brake ring Assembly	Tong Jaw & Back-up Jaw Assembly (5) Req'd	Guide Ring
1-5/16-1.900	33-48	250049	50-149-6-100	250056-1
1-7/8-2-3/8	48-60	200049	58-330-100	250056-2
2-3/8-2-7/8	60-73	250049	50-22-7-100	250056-2
2-7/8-3-1/2	73-89	250049	50-22-8-100	250056-2
3-1/2-4-1/2	89-114	250136	58-509-100	250056-3*
4-4-3/4	102-121	250136	58-509-101	250056-3*
5-6-1/16	127-154	250136	58-314	250056-3*

*Included in complete unit

SPECIFICATIONS

	CH-8000		GT-8000
	Hi Speed	Hi Torque	
Size range	1-5/16"-6-1/16"	1-5/16"-6-1/16"	1-5/16"-5-1/2"
33-154 mm	33-154 mm	33-154 mm	33-140 mm
Torque in Hi gear @ 2500 psi 175 Bar	1100 ft-lbs 1492 Nm	1675 ft-lbs 2271 Nm	2150 ft-lbs 2915 Nm
Torque in Lo gear @ 2500 psi 175 Bar	6250 ft-lbs 8474 Nm	8500 ft-lbs 11525 Nm	8500 ft-lbs 11525 Nm
Speed in Hi gear @ 35 G.P.M. 132.5 L/min	140 R.P.M.	103 R.P.M.	100 R.P.M.
Speed in Lo gear @ 35 P.P.M. 132.5 L/min	32 R.P.M.	25 R.P.M.	25 R.P.M.

JAW AND BUSHING ASSEMBLIES GT-8000

Size Inch	Size mm	Jaw Assembly (2) required	Back-up Bushing	8500-5565 Die No. Req'd/Size
1.500"	38	201022-1	201010-1	4
1.660"	42	201023-1	201011-1	4
1.900"	48	201024-1	201012-1	4
2-1/16"	51	201025-1	201013-1	4
2-3/8"	60	8519-5055	201014-1	6
2-7/8"	73	8519-5054	201015-1	6
3-1/2"	89	8519-5053	201016-1	8
4"	102	201031-1	201009-1	8
4-1/8"	104	8519-5052	201017-1	8
4-1/2"	114	8519-5051	201018-1	10
4-3/4"	120	8519-5050	201019-1	10
5"	127	8519-5049	201020-1	10
5-1/2"	140	8519-5048	201021-1	10

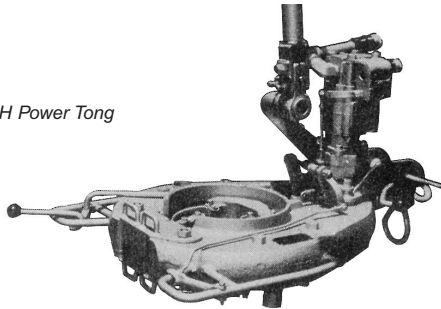
2853 Cherry Avenue
Long Beach, CA 90806
Ph: (562) 424-8564
Fax: (562) 595-6174



HILLMAN-KELLEY® Power Tongs



Model 3700-H Power Tong

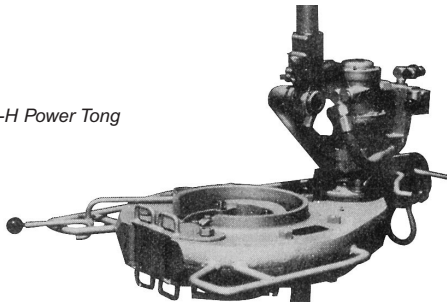


HILLMAN-KELLEY® Model 3700-H Standard Power Tong

● Specifications

Over-all length – 42"; length from center of pipe to back-up eye – 29"
Weight. 560 lbs.
Hydraulic power supply required:
36 gpm @ 1000 psi
15 gpm (minimum) @ 2000 psi
Tong speeds High gear – 110 rpm
Low gear – 30 rpm
Maximum tong torque (working) 6000 ft. lbs.
Size range 1.050" – 4.5" O.D.

Model 4600-H Power Tong

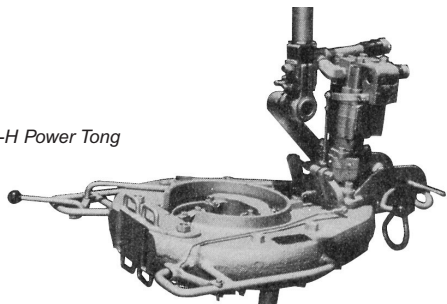


HILLMAN-KELLEY® Model 4600-H Deluxe Power Tong

● Specifications

Over-all length – 42"; length from center of pipe to back-up eye – 29"
Weight. 585 lbs.
Hydraulic power supply required:
35 gpm @ 1000 psi
15 gpm (minimum) @ 2000 psi
Tong speeds High gear – 110 rpm
Low gear – 30 rpm
Maximum tong torque (working) 6000 ft. lbs.
Size range 1.050" – 4.5" O.D.

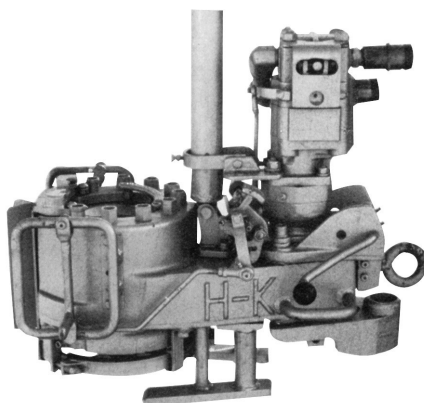
Model 5500-H Power Tong



HILLMAN-KELLEY® Model 5500-H Power Tong

● Specifications

Over-all length – 42"; width – 29"; length from center of pipe to back-up eye – 29"
Weight. 585 lbs.
Hydraulic power supply required:
35 gpm @ 1000 psi
15 gpm (minimum) @ 2000 psi
Tong Speeds High gear – 95 rpm
Low gear – 30 rpm
Maximum tong torque (working) 7000 ft. lbs.
Size range 1.050" – 5.5" O.D.



Model 500-C Hydraulically Powered Tong

HILLMAN-KELLEY® Model 500 C

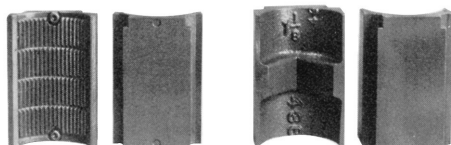
For Tubing and Sucker Rods

- Runs single or multiple tubing strings and sucker rods Tubing jaws for 3/4" (1.050" O.D.) through 3" (3-1/2" O.D.) tubing; Rod jaws for 5/8" through 1-1/8".
- Eliminates need to change tongs from tubing to rod...just change the jaws.
- Compact, lightweight, powerful – weights only 400 pounds.
- Efficiently powers in either direction; no need to turn over to makeup or breakout.
- Quick switch from makeup to breakout accomplished in seconds.
- Easy to operate from front, sides, or rear.
- Uses proven planetary gear box with hydraulic motor.
- Has a low gear capable of breaking any sucker rod joint.
- Works smoothly with an automatic retractor.
- Dual strings can be run from rig floor.

● Specifications

Over-all dimensions: length – 35"; width – 16"; (12" when equipped for multiple-string operation); height – 25"; length from center of pipe to back-up eye – 29"
Weight. 400 lbs.
Hydraulic power supply required:
35 gallons per minute @ 1000 psi
10 gallons per minute (minimum) @ 2000 psi
Tong Speeds high gear – 98 rpm
low gear – 25 rpm
Maximum torque high gear. 1150 ft. lbs.
Maximum torque low gear 4000 ft. lbs.

*To order—Specify: 1. Tong Model. 2. Part numbers. 3. Pipe O.D.
4. With or without hanger. 5. With or without Back-up.



Dies with full circle contact for running tubing.

Jaws used when running sucker rods.

Model 74-92-R • Tubing

Jaw Sizes Available

1" through 3-1/2" O.D. 100 to 2,500 Ft. Lbs. Torque

Torque range high gear 100 to 800 ft. lbs.

Max. torque low gear 2,500 ft. lbs.

RPM high 110* RPM low 30*

*(RPM based on published requirements of motor manufacturers
21 GPM to tong motor)

Length (A) 45"

Space requirement on Pipe (B) 6-3/8"

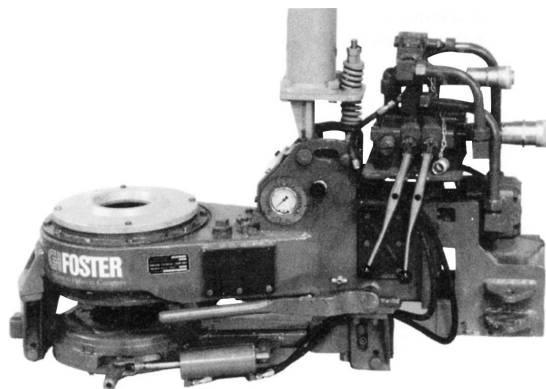
with Backup 13-3/8"

Max. elevator Dia. (C) 30"

C.L. of pipe to C.L. of Anchor (D) 30-3/4"

Weight approx. 550 lbs.

Torque reactive force at anchor pin 1,070 lbs.



Model 58-93-R • Tubing & Casing

Jaw Sizes Available

1-5/16" through 7" O.D. 300 to 6,000 Ft. Lbs. Torque

Torque range high gear 300 to 1,300 ft. lbs.

Max. torque low gear 6,000 ft. lbs.

RPM high 126* RPM low 27*

*(RPM based on published requirements of motor manufacturers
33.5 GPM to tong motor)

Length (A) 51"

Space requirement on Pipe (B) 9-1/2"

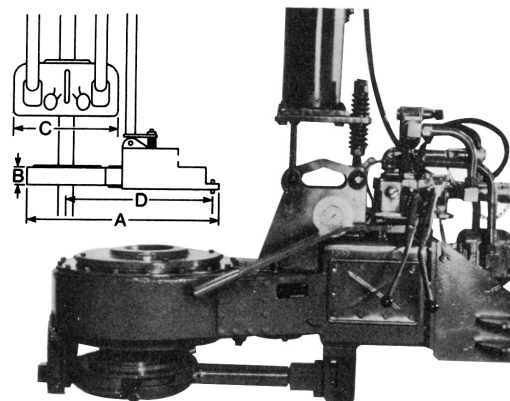
with Backup 16-1/2"

Max. elevator Dia. (C) 30"

C.L. of pipe to C.L. of Anchor (D) 30"

Weight approx. 1,000 lbs.

Torque reactive force at anchor pin 2,051 lbs.



Model 54-93 • Light Drill Pipe, Casing, Tubing

Jaw Sizes Available

1-5/16" through 7" O.D. 300 to 12,000 Ft. Lbs. Torque

Torque range high gear 300 to 1,500 ft. lbs.

Max. torque low gear 12,000 ft. lbs.

RPM high 130* RPM low 19*

*(RPM based on published requirements of motor manufacturers
39 GPM to tong motor)

Length (A) 61"

Space requirement on Pipe (B) 9-1/2"

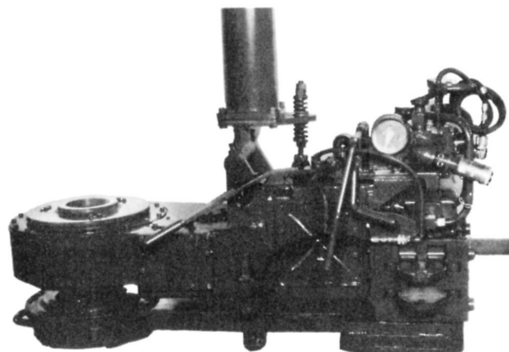
with Backup 18"

Max. elevator Dia. (C) 40"

C.L. of pipe to C.L. of Anchor (D) 43-5/8"

Weight approx. 1,360 lbs.

Torque reactive force at anchor pin 3,255 lbs.



Model 54-02 • Light Drill Pipe, Casing, Tubing

Jaw Sizes Available

2-3/8" through 4-1/4" Tool Joints

2-3/8" Tubing through 10-3/4" Casing

300 to 18,000 Ft. Lbs. Torque

Torque range high gear 300 to 1,500 ft. lbs.

Max. torque low gear 18,000 ft. lbs.

RPM high 80* RPM low 14*

*(RPM based on published requirements of motor manufacturers
55.5 GPM to tong motor)

Length (A) 76"

Space requirement on Pipe (B) 9-1/2"

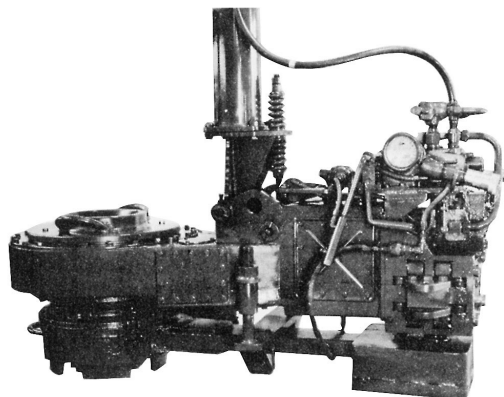
with Backup 20"

Max. elevator Dia. (C) 40"

C.L. of pipe to C.L. of Anchor (D) 47-5/8"

Weight approx. 1,600 lbs.

Torque reactive force at anchor pin 4,656 lbs.



2853 Cherry Avenue
Long Beach, CA 90806
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POWER SUCKER ROD TONGS



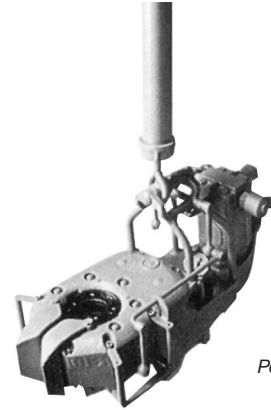
MARK II THROUGH MARK VI POWER SUCKER ROD TONGS

Description:

Purpose: Applies correct, uniform torque, reducing costly rod failures that often occur with hand wrenching.

Special features: The possibility of cross-threading is reduced to a minimum. Fully throttle operated. Torque gauge is standard equipment. Easily converted for macaroni tubing. Choice of air or hydraulic power.

The Cavins/BJ power rod tong delivers ample power to make up and break out all rod sizes. A single unitized jaw assembly fits 5/8", 3/4" and 7/8" (15.88 mm, 19.05 mm, and 22.23 mm) rods without change; allows fast, unitized jaw change for 1/2" and 1", 7/8" (12.7 mm and 25.4, 22, 23 mm) rod with 1-1/8" square and 1-1/8" (25.58 mm) rod sizes. The rod tong is also easily converted for macaroni tubing by replacing the rotating jaw assembly with macaroni tubing jaws.



Power Sucker Rod Tong

HOW TO SPECIFY AND ORDER

TONG LESS INNER RING ASSEMBLIES AND BACK UP WRENCHES	Part Number	Maximum Torque	Maximum Speed	HYDRAULIC REQUIREMENTS	
				0—1,000 psi	1,000—2,000 psi
Mark II (Hydraulic Motor)	27841	1,180 ft./lbs.	140 rpm	30 gpm	13 gpm
Mark IV (Hydraulic Motor)	27841-1	1,370 ft./lbs.	120 rpm	30 gpm	13 gpm
Mark V (Hydraulic Motor)	27841-5	1,850 ft./lbs.	90 rpm	30 gpm	13 gpm
				AIR PRESSURE REQUIREMENT	
Mark III (Air Motor)	27339	1,180 ft./lbs.	120 rpm	120 psi Maximum	
Mark VI (Air Motor)	27841-6	1,850 ft./lbs.	89 rpm	120 psi Maximum	

INNER RING ASSEMBLIES AND BACK-UP WRENCHES

Size of Rod	1/2"	5/8"	3/4", 7/8"	1"	1-1/8"	7/8" Rod with 1-1/8" Square
Rod Inner Ring	27899-2	27899		27899-4	27899-1	27899-3
Rod Back-Up Wrench	27898	27902	27903	27906	27907	27903-1
Size of Macaroni Tubing	1.050"	1.315"		1.660"	1.900"	.....
Tubing Inner Ring	30718	30716		30714	30712	.....

Model 76 Sucker Rod Tong

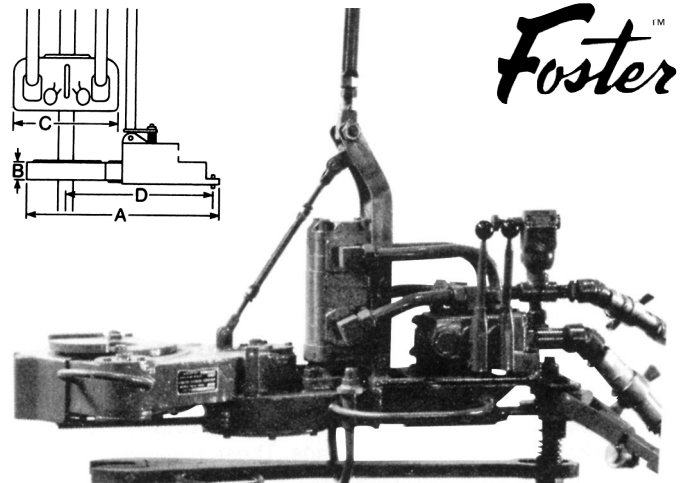
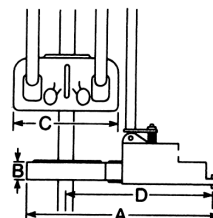
Jaw Sizes Available

1/2", 5/8", 3/4", 7/8", 1", 1-1/8" Sucker Rods

100 to 2,500 Ft. Lbs. Torque

Torque range high gear to 850 ft. lbs.
Max. torque low gear 2,500 ft. lbs.
RPM high 95 RPM low 23
Hydraulic requirement 25 GPM. 2,000 PSI
Length (A) 42"
Space req. on rod (B) 10" with Backup
C.L. of Pipe to C.L. of Anchor (D) 32-1/2"
Weight approx. 400 lbs.
Torque reactive force at anchor pin 873 lbs.

Note: Torque Indicator for Model 76 No longer Required. Ref. API RP11 BR Supplement No. 1, March 1973 For Sucker Rod Make Up.



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MANUAL TONGS



2853 Cherry Avenue
Long Beach, CA 90806
Ph: (562) 424-8564
Fax: (562) 595-6174

KELCO® FULGRIP® Tubing Tongs

- The "wrap-around" design gives a 360° grip on the tubing with 88% to 95% of the circumference area in die contact. As a result there is little possibility the pipe will be scored or crushed during making or breaking the string.
- FULGRIP Tongs are lightweight, easy to transport and use. Their sturdy design and tough construction tend to deliver dependable, long-lasting service.

- **These tubing tongs are available in four types:**

- Type A-20 – lightweight, aluminum tong for macaroni tubing 1.050"-2.063" O.D. and plastic tubing 1.050"-2.500" O.D.
- Type K-20 – high grade steel tongs for rugged, dependable field service for tubing 1.050"-2.500" O.D., 1,500 Ft.-Lb. torque rating.
- Type K-25 – high grade steel tongs for tubing 1.200"-3.063" O.D., 2,000 Ft.-Lb. torque rating.
- Type K-30 – for heavy-duty service for tubing 2.062"-4.125" O.D., 5,000 Ft.-Lb. torque rating. This tong is available with either standard hanger (K-30A) or with rollover block (K-30B).



FIG. 1 – Type A-20 Tubing Tong

TABLE NO. 1

Type	Size Range	Part Number (Less Dies)
A-20	1.050" – 2.063" (26.7mm – 52.4mm)	8527-5002
K-20	1.050" – 2.500" (26.7mm – 63.5mm)	8527-5014
K-25	1.200" – 3.063" (30.5mm – 77.8mm)	8527-5016
K-30	2.062" – 4.125" (52.4mm – 104.8mm)	8527-5035
K-30A	2.062" – 4.125" (52.4mm – 104.8mm)	8527-5036
K-30B	2.062" – 4.125" (52.4mm – 104.8mm)	8527-5037



FIG. 2 – Tong Pull-Back Strap

TABLE NO. 1
Tong Pull-Back Strap

Item	No. Req'd.	Part Number	Wt., Lbs. Each
Pull-Back Strap	1	24747	3



SNAP-ON TUBING TONG

Purpose: Strong, quick-acting tubing tong made of high-quality, heat-treated steel.

Description: This easily handled tong is "snapped on" with one hand, locking automatically around the tubing. It can be released only by the operator. The tong is held open when off the tubing, or in a closed position around the pipe, by two spring plungers which act directly against the body and lever. The BJ tong die is held at the proper angle for taking an instant, positive grip, releasing readily when the operator ratchets the tong. This firm, non-slip grip permits unscrewing joints of tubing up to 3-1/2" diameter without crimping.

DESCRIPTION OF SNAP-ON TONG MODELS

Order by Tong Description and Part Number

Tong Model	Part Number
Snap-On Tong Complete, with Back-up for 2-3/8" O.D. API Tubing	36816-237
Snap-On Tong Complete, with Back-up for 1.90" API Upset Tubing Coupling	36816-250
Snap-On Tong Complete, with Back-up for 2-7/8" O.D. API Tubing and 2-3/8" API Plain Tubing Coupling	36816-287
Snap-On Tong Complete, with Back-up for 2-3/8" O.D. API Upset Tubing Coupling	36816-306
Snap-On Tong Complete, with Back-up for 3-1/2" O.D. API Tubing and 2-7/8" API Plain Tubing Coupling	36816-350
Snap-On Tong Complete, with Back-up for 2-7/8" API Upset Tubing Coupling	36816-366

DESCRIPTION OF SNAP-ON JAW ASSEMBLIES

Assembly	Part Number
2-7/8" API Upset Coupling Jaw Assembly	37046-3
2-3/8" API Tubing Jaw Assembly	37044-2
2-7/8" API Tubing and 2-3/8" API Plain Coupling Jaw Assembly	37042-2
3-1/2" API Tubing and 2-7/8" API Plain Coupling Jaw Assembly	37046-2
1.90" API Upset Coupling Jaw Assembly	37044-3
2-3/8" API Upset Coupling Jaw Assembly	37042-3



TYPE "MS" TONG

Purpose: Light drilling and tubing work, including seismograph, shot-hole and exploration drilling.

Description: The Type MS has proved its efficiency in the field on all types of slim-hole drilling rigs. It has a T-head latch which, with the 2-step and 3-step lug jaw construction enables the

tong to fit both pipe cou-

pling and tool joint without any adjustment. The 3-jaw design permits uniform contact around the circumference of the pipe. The tong is strong enough to easily break both tool joints and bits in light drilling operations.

A rigid hanger suspension device allows fast, permanent adjustment, holding the tong balanced and ready for use. The Type MS is equipped with the same roll-over hanger feature found on the Type WS. All parts are interchangeable except the long jaw, latch, and lug jaws. The changes are slight dimensionally, but greater performance can be expected.

Size Range: 1.900" through 6-1/8" O.D.

Torque Ratings: 6,500 ft. lbs. from 1.900" through 6-1/8" O.D.

TO ORDER TONG COMPLETE

30425-110 "MS" Tong Complete with 2-3/8"-3.668" Lug Jaw Assembly

SPECIFICATIONS

Order by Part Number, Part Name and Size

Part Req'd.	Part Number	Wt. Lbs.—Oz.
30425	"MS" TONG COMPLETE LESS LUG JAWS (1.900"-4-1/2")	43
31131	"MS" TONG COMPLETE LESS LUG JAWS (4-1/2"-6-1/8")	44

2853 Cherry Avenue
Long Beach, CA 90806
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SUCKER ROD & TUBING ELEVATORS



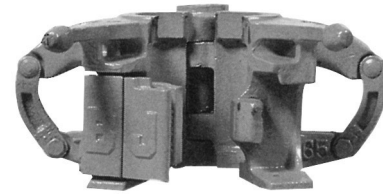
TYPE 'TA' CENTER LATCH ELEVATORS

Purpose: Center-latch elevators of superior design for handling collar-type drill pipe, casing and tubing.

Description: All TA elevators are constructed in two halves of practically the same weight, providing proper balance and easier opening and closing.

Special Features: Proper balance for easier handling; latch and safety latch lock combinations; other operator safety features

Safety features include guarded operating handles to help prevent accidents to operators and an extra handle at the rear of the elevators for easier, safer operation. All TA elevators are equipped with a latch and safety latch lock combination.



TA Elevator

"TA" SERIES COLLAR TYPE CENTER LATCH ELEVATORS A SERIES

Size		Type	Frame NR.	Cap.	Weight	
Inches	mm			Tons	lb-oz	kg
1.050—2-7/8	27—73	TA	32387—*	35	39	18
1.660—2-7/8	42—73	TA	32385—*	65	65	29
3-1/2—4-1/2	80—114	TA	32386—*	65	83	38
2-3/8—2-7/8	60—73	TA	32383—*	100	100	45
3-1/2—5	89—127	TA	32384—*	100	158	72

*Must specify O.D. size and type of tubulars (plain or upset)



'D' SERIES SIDE DOOR ELEVATORS



D SERIES SIDE DOOR COLLAR TYPE ELEVATORS

PURPOSE: Side-door elevators for handling plain or upset Collar-type drill pipe, casing and tubing. Available in Type LD and LLD model.

Size Ranges and Capacities: API pipe sizes from 2-3/8" (60.33 mm) through 3-1/2" (88.9 mm) O.D. See the table below.

For Collar-Type Drill Pipe and Tubing – Order by Part Number, Part Name and Size

SPECIFICATIONS—TYPE "LLD" SIDE DOOR ELEVATOR

Elevator Complete								
API Size		Frame	Min. and Max. Dia. Weldless Links		Rated Capacity		Weight Ea.	
In.	mm	No.1	in.	mm	tons	tonne	lb	kg
2-3/8	60.33	23296—*	1-3/4—2-1/4	44.45—57.15	65	58.97	83	37.65
2-7/8	73.03	23296—*	1-3/4—2-1/4	44.45—57.15	65	58.97	82	37.20
3-1/2	88.9	23296—*	1-3/4—2-1/4	44.45—57.15	65	58.97	80	36.29

*Must specify O.D. size and type of tubing (plain or upset)

SPECIFICATIONS—TYPE "LD" SIDE DOOR ELEVATOR

	Body No.	Min. and Max. Dia. Weldless Links	Weight Lbs.—Oz.	Rated Cap. Tons
2-3/8"	12591—*	1-3/4"—2-1/4"	138—0	100
2-7/8"	12591—*	1-3/4"—2-1/4"	136—0	100
3-1/2"	12591—*	1-3/4"—2-1/4"	133—0	100

*Must specify O.D. size and type of tubing (plain or upset)

NO-KINK ROD ELEVATOR—HEAVY TYPE

Elevator Complete				Front Latch		
Rod Size	Part No.	Wt. Lbs.—Oz.	API Rated Cap.—Labs.	No. Req.	Part No.	Wt. Lbs.—Oz.
5/8", 3/4"	27725	28—0	43,000	2	11745	0—8
3/4", 7/8"	27726	28—0	43,000	2	11746	0—8
1"	27727	28—0	43,000	2	11746-1	0—8
1-1/8"	27727-1	28—0	43,000	2	11746-2	0—8

REPLACEMENT PARTS—HEAVY TYPE

No. Req.	Part No.	Part Name	Wt. Lbs.—Oz.
1	27752	Bail	10—8
2	12639	Rear Latch	0—6
4	27722	Latch Pin	0—3
2	6063	Latch Spring	0—2
2	28147	Bail Retainer Washer	0—3

NO-KINK ROD ELEVATORS

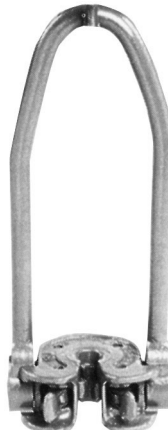
PURPOSE: Safe efficient handling of sucker rod sizes from 5/8" (15.88 mm) through 1-1/8" (28.58 mm). Can also handle hollow type sucker rod and tubing.

Special Features: Will not bend or kink sucker rods even under the heaviest loads.

Reversible-type body.

Capacity: The No-Kink elevator is available in a heavy type, 43,000-pound (19504.8 kg) capacity, for longer rod strings.

NOTE: When ordering No-Kink rod elevator for use with hollow-type sucker rods or for handling tubing, please specify make and size of rod or tubing.





R-35 Rod Hook



R-20 Rod Hook



C-10 & C-25
Crane Hooks

Purpose: Sucker rod handling equipment for every depth and operating condition.

Description: Cavins/BJ® rod hooks are offered in two sizes—20 and 35 ton capacities—engineered to Cavins/BJ's exacting standards of quality. High-strength steel properly machined, heat-treated and tested, ensures long, trouble-free service.

The locking mechanism on both models is operated by means of a one-hand grip at the hook's center of balance. This allows the operator to steady the hook, open the locking arm and engage or remove the bail in one smooth, continuous operation. A strong loop guard protects the operator's hand.

The Cavins/BJ Model R-35 has a relief spring that provides 2–2-1/2" of travel. It has ample strength to lift a stand of rods, reducing the possibility of damage to pin and coupling threads. The Model R-35 Hook also has a large bail as standard equipment.

Sizes and Capacities: The Model R-20 has a rated capacity of 20 tons and the Model R-35 has a rated capacity 35 tons in accordance with API standards.

REPLACEMENT PARTS—Cavins/BJ ROD HOOKS

Ref. No.	No. Req.	Part Name	Model R-35		Model R-20	
			Part No.	Weight Lbs.—Oz.	Part No.	Weight Lbs.—Oz.
...	...	R-20 Hook Complete	.....	.....	32040	49—0
...	...	R-35 Hook Complete	31982	84—0	.....	.....
1	1	Body	31965	41—0	32039	20—0
2	1	Bail Housing	31966	27—0	32041	20—0
3	1	Grease Fitting	940308-1	0—1	940308-1	0—1
4	1	Shank Spring	31968	5—0	.....	.....
5	1	Thrust Bearing Assembly	942440-1	4—0	942441-21	3—0
6	1	Hex Nut	32626	1—0	32626	1—0
7	1	Pin	947129-28	0—2	947129-28	0—2
8	1	Bail Housing Cap	31967	2—0	8222	1—12
9	2	Screw	900042-12	0—2	.....	.....
10	1	Latch Handle	31971	1—8	31971	1—8
11	1	Latch Spring	31973	0—4	31973	0—4
12	1	Latch	31972	1—0	31972	1—0
13	2	Pin	32632	0—2	32632	0—2
14	2	Cotter Pin	.....	.....	939672-55	0—2
15	1	"O" Ring	.....	.....	942271-43	0—1

Purpose: Cavins/BJ® crane hooks are offered in two sizes: 10 and 25-ton capacities engineered to Cavins/BJ exacting standards of quality. High-strength steel, properly machined, heat treated and tested, insures long, trouble-free service.

The locking mechanism on both models is operated by means of a one-hand grip, protected by a strong loop guard. The crane hook body can be adapted to most all crane blocks on special request.

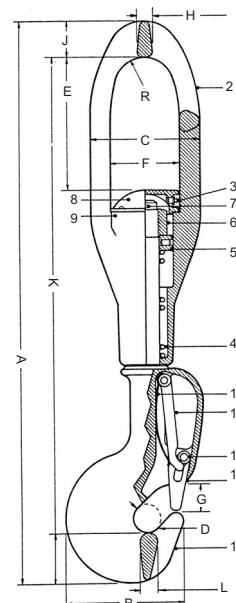
Sizes and Capacities: The Model C-10 has a rated capacity of 10 tons and the Model C-25 has a rating of 25 tons in accordance with API standards.

CRANE HOOKS—REPLACEMENT PARTS

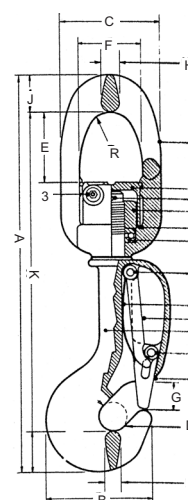
Part	No. Req'd.	Model C-25	Model C-10
Hook Complete	1	32842	32848
Body	1	32837	32847
Bail	1	32041	32041
Cap	1	8222	8222
Spring	1	31973	31973
Nut	1	32626	32626
O-Ring	1	942271-43	942271-43
Bearing	1	942441-21	942441-21
Cotter Pin	1	939672-73	939672-73
Latch Handle	1	31971	31971
Latch	1	32836	32836
Pin	2	32632	32632
Cotter Pin	2	939672-55	939672-55
Grease Fitting	1	940308-1	940308-1

DIMENSIONAL DATA

Size	R-35	R-20
Type	Spring	Plain
Spring Travel	2-1/2	None
A	37-5/16	25-1/4
B	7-7/8	6-3/4
C	7-3/8	6-3/8
D	1-7/8	1-7/8
E	11-1/4	4-1/2
F	4-5/8	4
G	1-13/16	1-13/16
H	1-1/2	1-3/8
J	2-1/2	2-3/8
K	31-11/16	20-1/4
L	1-7/8	1-1/2
R	2	1-1/2



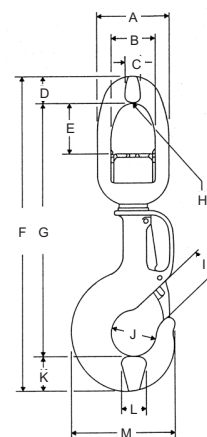
R-35 Rod Hook



R-20 Rod Hook

DIMENSIONAL DATA

Reference	Model C-25	Model C-10
A	6-3/8"	6-3/8"
B	4"	4"
C	1-3/8"	1-3/8"
D	2-3/8"	2-3/8"
E	7"	7"
F	29-9/16"	27-13/16"
G	23-9/16"	22-7/16"
H	1-1/2"	1-1/2"
I	2-1/2"	2-1/2"
J	4-1/4"	4-1/4"
K	3-1/4"	3"
L	2-1/2"	2-1/4"
M	10-3/4"	9-1/2"



C-10 & C-25
Crane Hooks

ELEVATOR LINKS & HOOKS



TOOLPUSHER LINKS

Description: Toolpusher Links are forged from a single piece of high grade alloy steel to provide maximum tensile strength. More weight and "plus-diameter" in critical areas make these Cavins/BJ links extra strong. Short upper eye design means better balance and easier elevator handling, while reducing wear of the eye section against the swivel bail or body.

SPECIFICATIONS – TOOLPUSHER LINKS

Part No.*	Size-in.	Size-mm	Rated Capacity/Set Tons	Weight/Set	
				lb	kg
37355-1036	1-3/4 x 36	44.45 x 914.4	150	125	56.7
37355-1048	1-3/4 x 48	44.45 x 1219.2	150	160	72.6
37355-1060	1-3/4 x 60	44.45 x 1524.0	150	190	86.2
37355-1072	1-3/4 x 72	44.45 x 1828.8	150	230	104.3
37355-1084	1-3/4 x 84	44.45 x 2133.6	150	270	122.5
37355-1096	1-3/4 x 96	44.45 x 2438.4	150	310	140.6
37355-1120	1-3/4 x 120	44.45 x 3048.0	150	390	177.3

*Sold only in sets



WEB WILSON® HYDRA HOOK™

● 150 Ton	For depth from 5,500 to 8,000 feet using 4-1/2" drill pipe or 7,000 to 10,000 using 3-1/2" drill pipe.
● 100 Ton	For depths from 4,500 to 7,000 feet using 3-1/2" drill pipe.
● 65 Ton	For depths from 2,750 to 4,500 feet using 3-1/2" drill pipe and tubing handling.
● 40 Ton	For handling of tubing and for drilling to 2,750 feet using 3-1/2" drill pipe.

The Web Wilson Hydra Hooks are available in four different capacity ratings from a 40 ton to the 150 ton model. There are a number of features in each Hydra Hook designed to add convenience and long life to your rig. Some of these are:

- Hydraulic cushion controls bounce to reduce thread damage when "jumping out" pipe
- Heavy-duty main spring provides extra force to "jump out" heavy pipe stands
- Main roller-type bearing with large contact area always submerged in oil
- Continuous lubrication of main spring and shank
- Split ring assembly connects shank to hook
- Choice of connections – clevis-to-bail, direct, or unitized
- Oil changes easily made with hook hanging from blocks

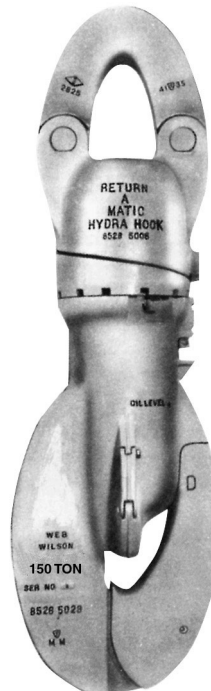


Fig. 1
150-Ton HYDRA HOOK

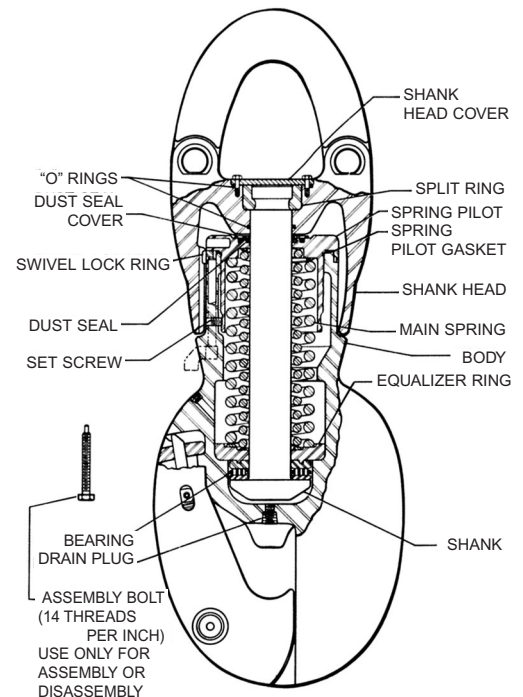
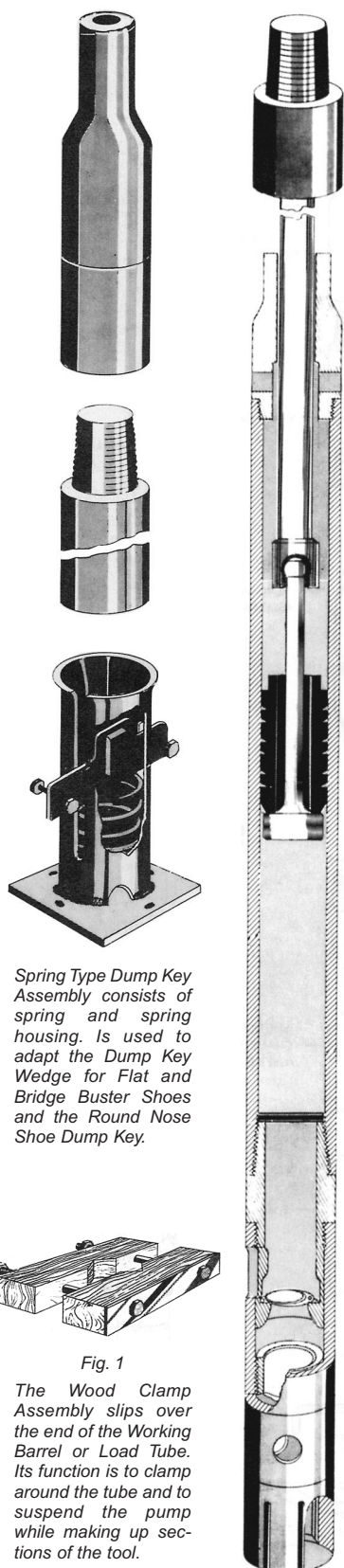


Fig. 2
Major Parts of HYDRA HOOK

CAVINS ROD TYPE SAND PUMP

For General Production Clean Out Service

2853 Cherry Avenue
Long Beach, CA 90806
Ph: (562) 424-8564
Fax: (562) 595-6174



Spring Type Dump Key Assembly consists of spring and spring housing. Is used to adapt the Dump Key Wedge for Flat and Bridge Buster Shoes and the Round Nose Shoe Dump Key.

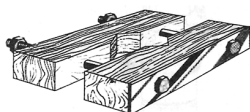


Fig. 1

The Wood Clamp Assembly slips over the end of the Working Barrel or Load Tube. Its function is to clamp around the tube and to suspend the pump while making up sections of the tool.

This very rugged and efficient Sand Pump is used for general utility production clean out work where it is not necessary to flush the perforations by means of hydraulic surge. It will function very efficiently in wells having little fluid and also where fluid in the wells is of a heavy viscous nature down to 9° A.P.I. gravity. A special blow-out feature is incorporated which utilizes any gases entrained in the well fluid to discharge the load. A Quick Change Rope Socket, Sinker Bar, Bottom Sleeve, regular flat adjustable Shoe, Dump Key, and Wood Clamp (Fig. 1) are furnished as standard equipment with all Sand Pumps 1-3/4" O.D. and larger.* Load Tubes, Bridge Buster Shoes (Fig. 3), Chisel Shoes (Fig. 4), Rein Jars or Tubular Jars can be supplied along with many other accessories.

*O.D. of wire line must be specified when ordering.

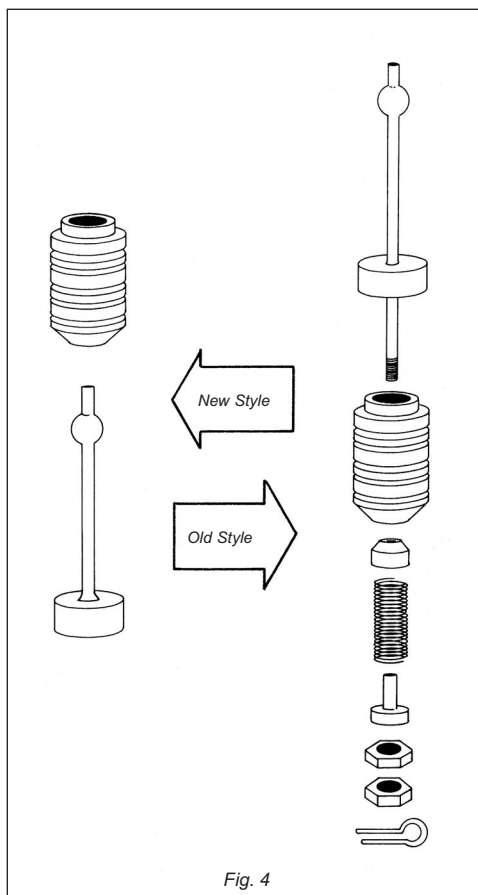


Fig. 4

The Multi-Lip Plunger (Fig. 2) is available as a standard feature for most sizes of CAVINS Sand Pumps. It is made of synthetic oil-resisting rubber and is recommended for normal bailing operations where the well temperature does not exceed 200°F. A strong bond between the high strength rubber and the steel mandrel on which it is mounted prevents the stripping of rubber, even under severe operating conditions. The multiple lips provide a perfect upstroke seal and automatically compensates for wear. In wells where elevated temperatures are encountered, such as in secondary recovery operations, an all metal plunger (Fig. 5) is recommended. The Plunger is designed with a labyrinth seal which does not require any packing. However, "O"-Rings may be used for additional sealing if desired.

The Bridge Buster Shoe is used to break up hard packed sand and bridges. It is made from alloy steel, heat treated and hard faced on the cutting edge.

Fig. 3

The Chisel Shoe is used to break up hard pieces of cement, lime, shale, or rocks that are too large to enter the bottom of the tool. It is made from alloy steel, heat treated and hard faced on the cutting edge.

Fig. 4

The Metal Plunger is recommended for wells with elevated temperatures, replacing the regular Plunger assembly. Suction is attributed to cascade seals. Is also effective for use in wells operating under normal temperature conditions.

Fig. 5

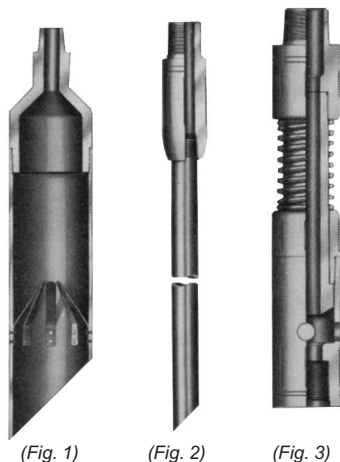
ENGINEERING DATA

Sand Pump Size	For Use In Pipe I.D.	Wgt. Lbs.	Lgth* (Feet)
1-1/4" O.D. (Cavins Model 5A)	1-1/2" - 2-1/2"	75	30
1-1/2" O.D. (Cavins Model 4A)	2" - 3"	140	30
1-3/4" O.D. (Cavins Model 3A)	2" - 3"	165	35
2-1/8" O.D. (Cavins Model 2A)	2-1/2" - 4"	265	35
2-5/8" O.D. (Cavins Model A)	3-1/2" - 5"	320	35
3-1/8" O.D. (Cavins Model B)	5" - 8"	400	35
3-3/4" O.D. (Cavins Model C)	6" - Up	500	35
4-1/2" O.D. (Cavins Model E)	6" - Up	630	35

*These lengths are for single section Sand Pumps. Optionally, we manufacture 40', 50', and 55' Double Section Sand Pumps for which a load tube section must be ordered as an accessory.

CAVINS HYDROSTATIC BAILER

Telescoping Valve Section Type



(Fig. 1)

(Fig. 2)

(Fig. 3)

JUNK BASKETS (Fig. 1)

Cavins Junk Baskets are used with the Cavins Automatic Hydraulic Suction Bailer and Fishing Tool for fishing out movable objects that are too large to enter the regular bailer bottom. Such Junk Baskets are extremely successful in recovering rock bit cones and cutters, blades from drag bits, pipe slivers, drilled up cement retainers and bridging plugs, tubing collars, packer rubbers, etc.

SKEETER BILL (Fig. 2)

Used with the Cavins Automatic Hydraulic Suction Bailer for cleaning out around and inside of stuck fish, such as gas anchors, tubing, etc., preparatory to fishing with a socket or spear; also to clean out around other fish which cannot be recovered, but which may be chased to bottom in this manner.

It consists of a sub for attaching to bailer bottom, and a small O.D. thick-walled, seamless tubular extension up to 20 feet long. Available in both straight and off-set types. In the latter type, the off-set is not carried beyond the bailer O.D. (not shown) unless so specified. When ordering, specify type desired, length of extension, and size of bailer on which it is to be run.

BY-PASS VALVE (Fig. 3)

This device is subbed between the bailer bottom and the Junk Basket. It permits the well fluid to by-pass up through the Junk Basket, thus permitting the bailer assembly to descend to bottom freely and without interruption. For use especially with larger size of Junk Baskets where the clearance between the O.D. of the basket and the I.D. of the well bore, or casing, is restricted.

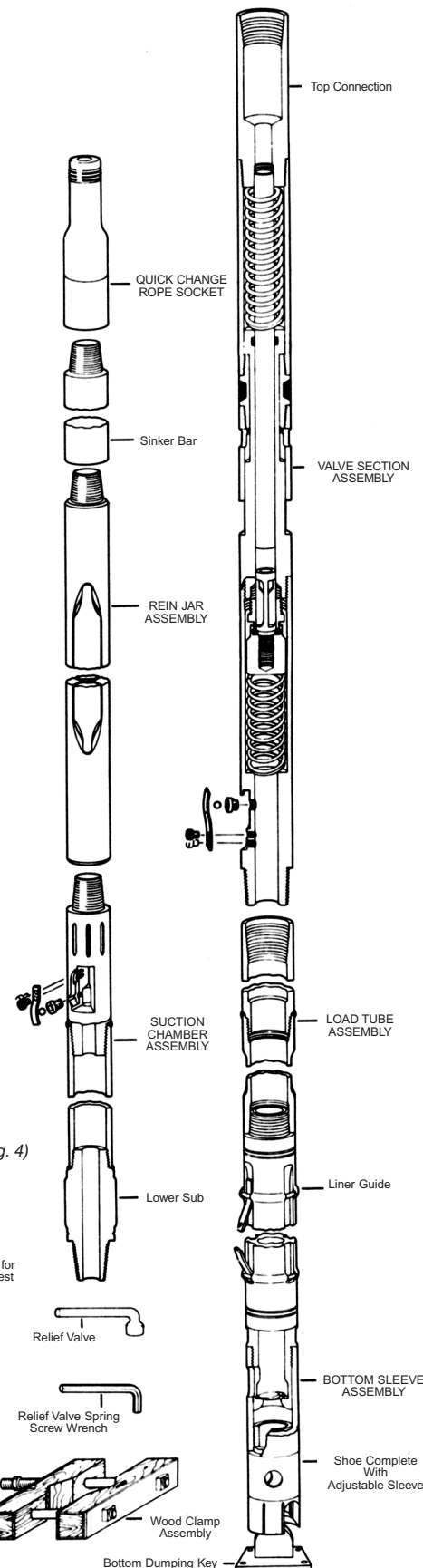
Run on wire line on any type of hoisting rig.

This outstanding Bailer utilizes the fluid column (500 ft. min.) standing in the well to create the hydraulic energy required for its operation. It is the most efficient tool for breaking hard packed sandbridges in Casing and Tubing, fishing out all types of movable junk, cleaning out through collapsed pipe, etc. The CAVINS Junk Basket can be attached to the bottom of the Bailer for fishing out movable objects too large to enter the Regular Bailer Bottom. The Junk Baskets are extremely successful in recovering Rock Bit Cones, Cutter Blades from Drag Bits, Pipe Slivers, drilled up Cement Retainers, Bridging Plugs, Tubing Couplings, Packer Rubbers, etc. It will efficiently flush the perforations.

The CAVINS Hydrostatic Suction Bailer consists of a Jar Section, a Suction Chamber, a Telescoping Valve Section and a Load Chamber. It can be run on any size wire line and with any type of hoisting rig. The creation of a Pressure Differential is accomplished by the submergence of the Bailer with the Suction Chamber filling with air at atmospheric pressure. When the tool comes to rest at the bottom, the weight of the Suction Chamber Tube and the Jar Section, which are all located above the Telescoping Valve Section, opens the Valve Section and exposes the Atmospheric Pressure in the Suction Chamber to the greater pressure in the Fluid Column. This fluid rushes into the empty Suction Chamber Tube with sufficient velocity to carry everything with it which is at or near the Bailer Bottom.

The CAVINS Multi-Surge Junk Snatcher is a hydrostatic multi-action junk fishing tool which runs on drill pipe or tubing and works on the same principle as the Hydrostatic Bailer.

Cavins "Wood Clamp" assemblies are supplied with each Hydrostatic Bailer, as well as Sand Pumps, to hold the tool above the well head while it is being made up or taken apart. The "Dump Key" is in a spring loaded housing which can be securely spiked to the floor to turn the bottom sleeve assembly to enable the bailer or sand pump to be emptied of its load.



"MULTI-SURGE" JUNK SNATCHER

For Recovery of Small Junk in the Well

2853 Cherry Avenue
Long Beach, CA 90806
Ph: (562) 424-8564
Fax: (562) 595-6174

The Junk Snatcher operates on a pressure-differential principle which permits **repeated high velocity hole-cleaning surges in one run of the pipe**. This unique and efficient multi-Surge Action is obtained without the use of fluid pumps at the surface and with a minimum of manipulation of the fishing string. Complete Junk Basket Assemblies to accommodate virtually any size hole and fish are available with the MULTI-SURGE Junk Snatcher. Each lower Junk Basket assembly is threaded to accommodate the use of the Guide Shoe, or other attachments; to break, shape, or center junk prior to each surging operation. Each complete surge of the Junk Snatcher is instantaneous and the operator need only to pick up the fishing string to ready the tool for repeated operations.

INSTALLATION OF THE CAVINS JUNK SNATCHER PARTS IN THE DRILL STRING

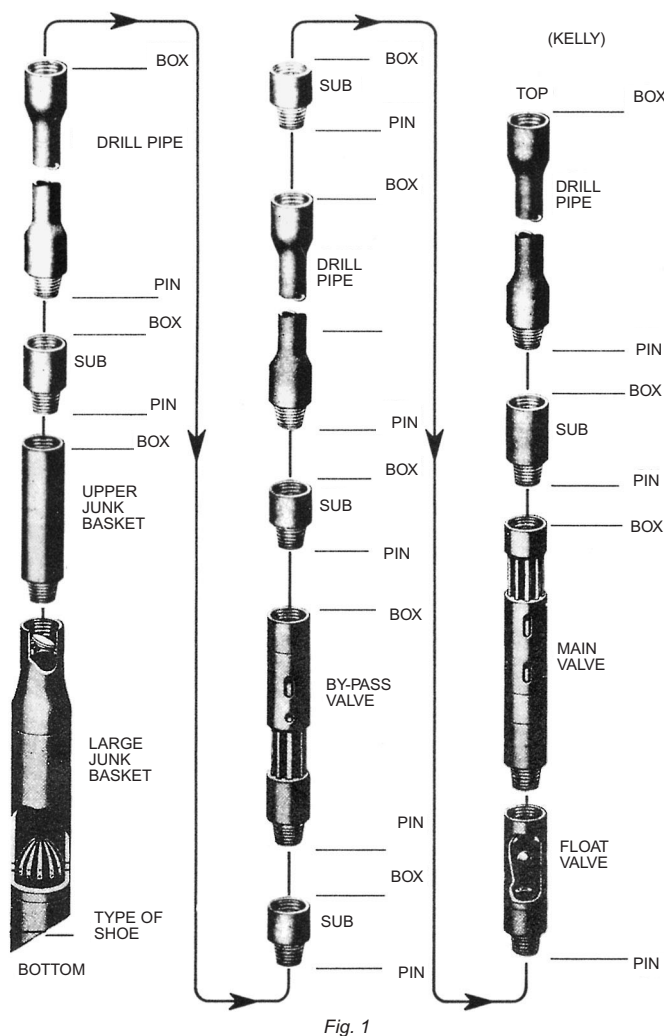


Fig. 1

BOTTOM SHOES

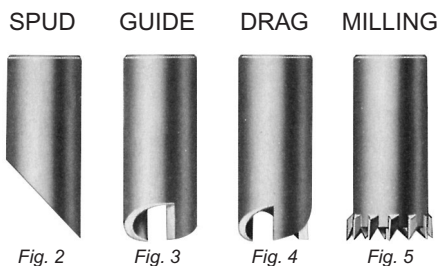


Fig. 2

Fig. 3

Fig. 4

Fig. 5

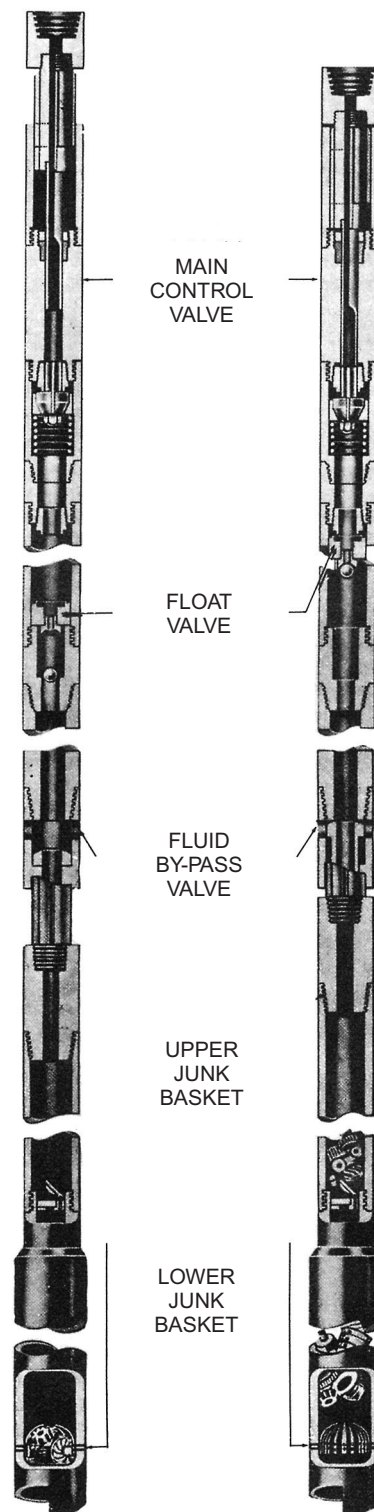


Fig. 6
CLOSED

Fig. 7
OPEN

HYDROSTATIC TUBING BAILER

For General Bailing Service

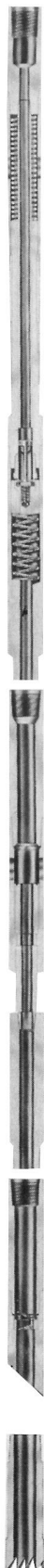


Fig. 1

Tubing Bailer
Valve Section

By-Pass
Valve
Section

Bottom Valve Section
With Check Valve and
Bridge Buster Shoe

Optional
Drag Shoe

For more than half a century CAVINS has been the leader in the manufacturing of production bailing equipment for sand. One of the pioneers of proven bailing tools is the CAVINS Telescoping Hydrostatic Valve Section Bailer for use on wire line. The CAVINS Hydrostatic Tubing Bailer works on the same principle as the wire line type bailer only it is run on the tubing string thereby greatly increasing the volume of sand which can be removed with each run.

The Hydrostatic Tubing Bailer operates on a pressure differential basis utilizing the fluid column (1000 ft. min.) standing in the well to create the hydraulic energy required for its function. As the tubing string is lowered and contacts the fill the valve section is opened drawing sand into the string which is trapped by a check valve. This type of operation can continue until the differential pressure has been equalized. The tubing is then pulled from the well and cleaned out. If desired the By-Pass Valve Section can be run which allows the string to be pulled dry above the load of sand.

The Tubing Bailer is one of the most efficient means of sand recovery where high volume of fill exists in the well. This method is far superior to simple circulating techniques not only because of the obvious savings of costly time and equipment but also because the sand is drawn with hydraulic suction rather than high pressure with a circulating pump which actually can force the sand back into the perforations of the well liner. The hydraulic surge from the Tubing Bailer will effectively flush the perforations during sand recovery operations.

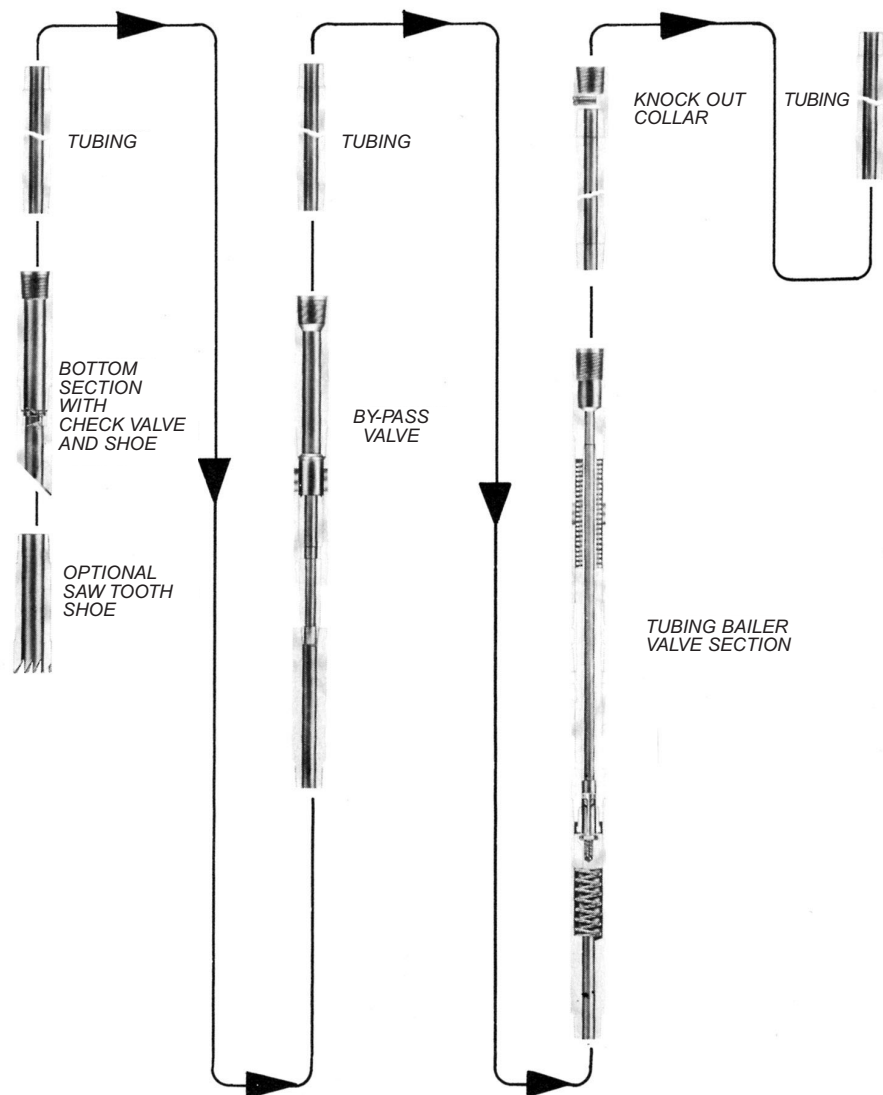


Fig. 2

The CAVINS "TURBO BAILER" is engineered for fast, efficient well cleanout especially when large amounts of fill or scale are encountered. It has proven to be a very cost effective tool over conventional sand line bailers in these situations and unlike the Hydrostatic Tubing Bailer, the "TURBO BAILER" can be run in shallow or any depth well with a relatively low fluid level.

The "TURBO BAILER" working barrel chamber is run in the tubing string, utilizing a flapper valve placed strategically to insure positive containment of debris inside the tubing.

HOW IT WORKS

The "TURBO BAILER," in the tubing string, is set into the existing fluid level of the well at which point the tool is stroked in a manner similar to a sand pump. The up-stroke evacuates debris from the well upward through the shoe into the tubing and as a result is trapped above the flapper valve which closes during the down-stroke motion. As fluid reaches the plunger assembly, it passes through a check valve and is discharged through return ports back into the well. This stroking is repeated until the tubing is filled with sand and/or debris.

The "TURBO BAILER" offers certain advantages over sand line bailers. The lift rod is of heavy duty hex design which affords the tool to be rotated with the tubing string to facilitate getting through sand bridges or breaking up hard packed fill.

The "TURBO BAILER" has additional benefits over conventional circulating techniques including cost reduction through elimination of expensive pumping equipment and special circulation fluids (minimizing environmental impact) as well as avoiding the use of high pressure in the well which can force sand back through the perforations and into the formation. In contrast, the "TURBO BAILER" actually cleans the perforations during operation with its suction action.

The CAVINS "TURBO BAILER" may be run on all sizes of tubing and drill pipe.

SIZES

Model	O.D.	Threads
B	3-1/8"	2-3/8" EUE-8rd
C	3-5/8"	2-7/8" EUE-8rd
E	4-1/2"	3-1/2" EUE-8rd

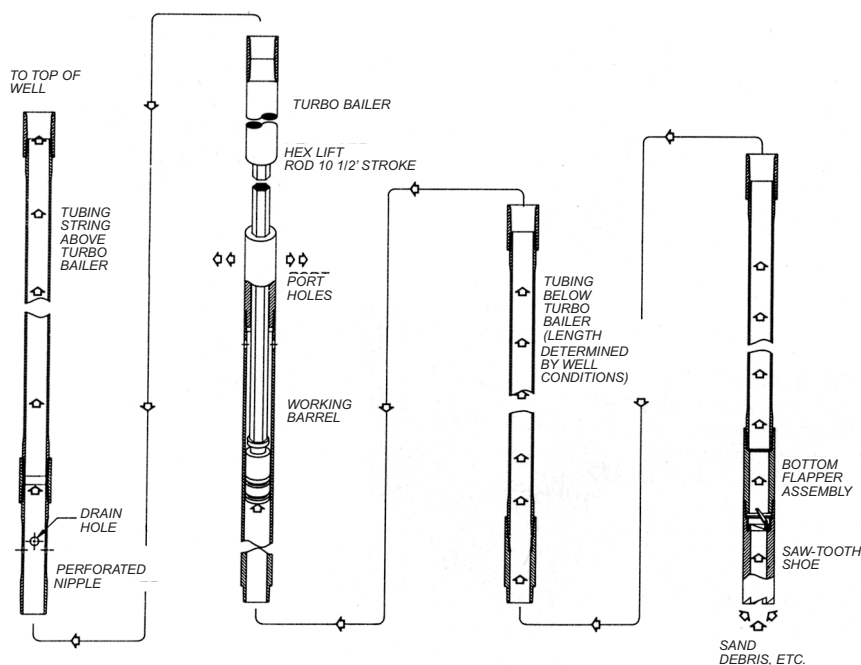


Fig. 2

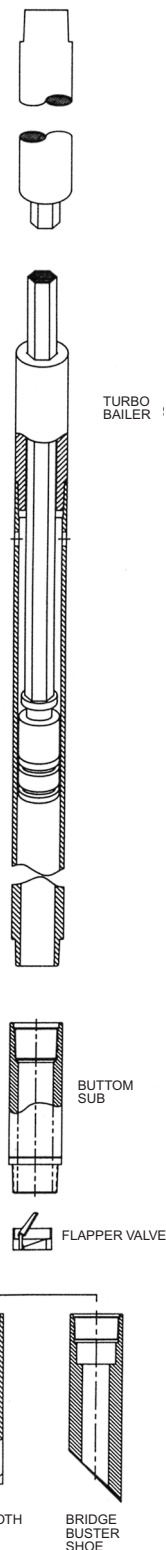


Fig. 1

CAVINS DEPTHOMETER For Wire Line Well Measuring

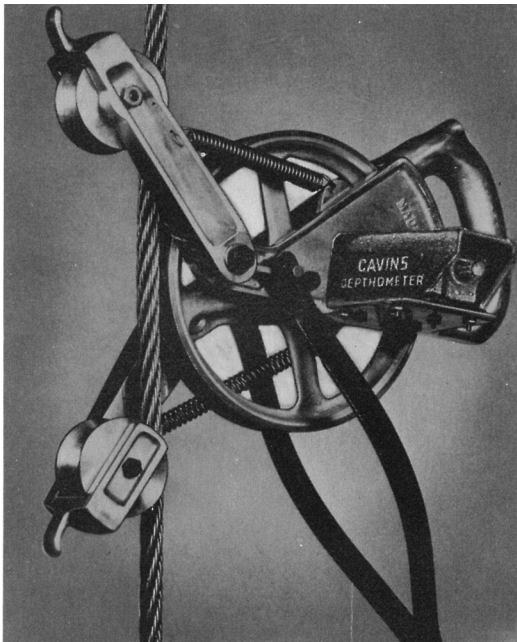


Fig. 1

DEPTHOMETER EYE BOLT HANGER

To facilitate the safe handling of the Cavins Depthometer on rigs where it is impractical or impossible to securely anchor to the usual Floor Stand, an Eye Bolt Hanger can be supplied. It can be supported from a sand line or cat line from the rig top. The hanger engages the Depthometer in exactly the same manner in which the floor stand is attached and simplifies the removal of the tool.

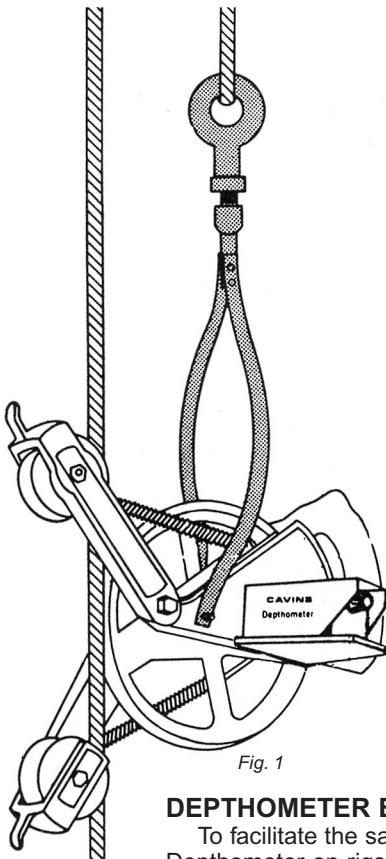


Fig. 2

DEPTHOMETER WITH FLOORSTAND

The Cavins Depthometer has no equal for quick, accurate wire line measurements of oil, gas and water wells, particularly when perforating, bailing, cleaning out, swabbing, single shot, or similar operations. It has proven valuable in both on-shore and off-shore operations. This tool is also used for measuring armored cable for submersible pumps. The Cavins Depthometer has made "stringing-in" obsolete, and is being adopted as standard equipment for production and well drilling operations. The Cavins Depthometer is available for 7/16" – 5/8" O.D. wire lines and 3/4" – 1" O.D.

The range for which the Depthometer is to be used must be specified on the order. If the tool is to be used for both ranges, an extra main measuring wheel can be supplied, which can be exchanged in the field in a few minutes time. Cavins Depthometers are available for recording measurements in feet or meters. They can be supplied with all bronze bearing construction Model "BL" or all ball-bearing construction Model "CL".

When ordering, please state the following information:

- Range of Wire Line size
- Measuring in feet or meters
- Model "BL" All Bronze Bearing type
- Model "CL" All Ball Bearing type with or without carrying case and stand or with Carrying Case and Hanger

Each Cavins Depthometer bears a Model Number and Serial Number. The range of size lines for which it is to be used is stamped on one spoke of the main wheel. When ordering spare parts please mention the Model, Serial Number and Wire Line size.

Shipping Weights and Measurements

Net Weight 36 Lbs. 16.3 Kg.

Tare Weight 24 Lbs. 10.9 Kg.

Gross Weight 60 Lbs 27.2 Kg.

Export Shipping Case: 14" x 17" x 21" = 2.9 Cu. ft. –
36 x 43 x 53 Cm. = .08 Cu. Meters.

Depthometers for special wire line size are available on application.

Maximum Reading 999,999 Feet or 999,999 Meters.

Net Weight of Depthometer Only 11 Lbs 5.0 Kg.

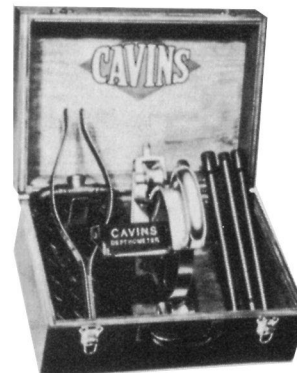
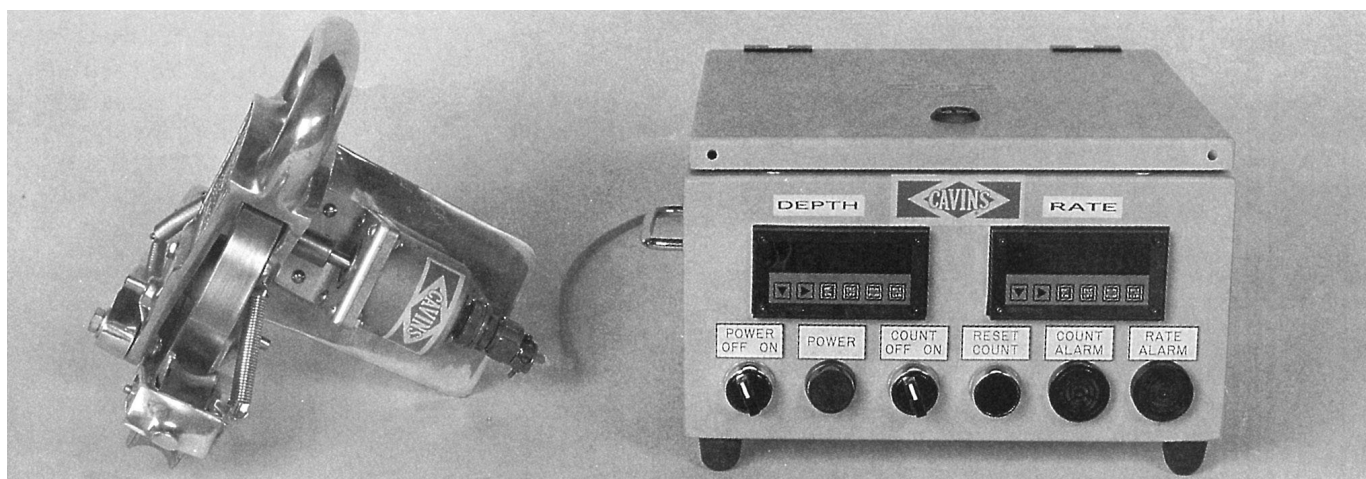


Fig. 3

DEPTHOMETER CARRYING CASE

The Cavins Depthometer and Stand or Eye Bolt Hanger can be supplied with a heavy duty, light weight carrying case. It protects the instrument and especially the counter from the elements and provides a compact storage place for complete assembly.



CAVINS is pleased to announce the introduction of a Depthometer equipped with Electronic displays for use on Coil Tubing units. The displays are mounted in a NEMA 4 rated enclosure and optionally can be mounted on a face plate to fit in your control console. The unit comes standard with the following features:

- The unit displays both Depth and Rate of Tubing travel.
- By simply adjusting the calibration, display can be either in feet or meters.
- As the main wheel wears, accuracy can be maintained by field calibration.
- A direction switch allows the counter to increment from zero regardless of the manner in which the depthometer is mounted.
- The counter allows an alarm to sound for up to 99.99 seconds when a preset depth is reached.
- The rate display can be programmed to sound an alarm when the rate of tubing travel falls outside of a preset range.

- A conversion kit is available to convert an existing mechanical depthometer into an Electronic display type.

Counter/Rate display features:

English Prompts

- Easy to Read
- Easy to program

Large LED Display

- 5 Digits
- High Intensity
- High Contrast

Sealed Front Panel

- NEMA 4 rated
- Oil Tight
- WaterTight
- Chemical Resistant

Power Input

- 110 VAC or 10-26 VDC

EXTRA LARGE COUNTERS FOR CAVINS DEPTHOMETERS

An optional Extra Large Counter is available when ordering a new Depthometer or as a conversion kit for your own Cavins Depthometer.

The Extra Large Counter has full 3/4" high numerals which are more than twice the size used on the standard Depthometer counter and facilitate easier reading in applications where the unit is mounted a short distance away from the operator such as on coiled tubing rigs.

The following configurations (Fig. 3) are available for the Extra Large Counter. Our standard configuration is #3, however, the configuration for your use may vary according to your particular application and mounting location of the Depthometer on your rig.

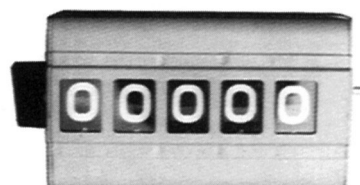


Fig. 2
Extra Large Counter



Fig. 3
Counter Rotations

To order a complete Depthometer with the Extra Large Counter or a conversion kit please specify the same information as for a standard Depthometer and add the wording; with Extra Large Counter with 3/4" numerals and also specify the desired configuration (1, 2, 3 or 4).

BALL LOCK OIL SAVER

For: Blow-Out Prevention and Line Wiping



Fig. 1

The Ball-Lock Oil Saver is standard with the popular Steel Hydraulic Bonnet. It is completely reliable for efficient line wiping action and is designed to reach maximum utilization of the Packing Rubber



Fig. 4



The optional Hydraulic Bonnet is a self contained unit and features a Bonnet pump and Handle for ease of operation. Fig. 2



The Screw-Type Bonnet is available for Manual Operation. Fig. 3

BALL LOCK OIL SAVERS

The use of the Ball Lock Oil Savers by drilling and production departments has earned this service proven tool a reputation for trouble-free operation with simplicity. The CAVINS Ball Lock Oil Savers (Fig. 1) are made of high carbon steel and precision machined for demanding dependability and safety in a wide range of service applications. Exhaustive testing in the excess of 3000 psi is further assurance against failure or leakage. Incorporated in its design, which affords a cleanly wiped wire line, is its safeguard against blow out. One important feature of the Oil Saver is its automatic ball release design. Hardened Steel Balls hold the traveling assembly securely in the body until released by the upward travel of the Rope Socket. The Rubber Packing unit with its internal fins provide the ultimate in wire characteristics with only a normal pressure, or drag, on the line. The Packing Rubber is compounded of special abrasive and oil resistant properties to give the rubber longer wear. A tough spark-proof die cast alloy is utilized in the top and bottom line guides and enhances reduced wear in the rubber packing unit. A high quality leather hydraulic packing ring wards against leakage in the area between the body and the traveling assembly.

The Steel Hydraulic Bonnet is Standard Equipment for Cavins Ball Lock Oil Savers. The Hydraulic Bonnets provide an even greater degree of wiping efficiency. The wire line can be completely stripped of all oil, or water and an Oil Saver outfitted with a Hydraulic Bonnet foregoes the necessity of tools for "taking up" wear in the packing element. The one hand operation requires only a few strokes of the pump handle to give complete wiping action or turn the release valve when no wiping is required. The Hydraulic action affords a greater rubber contact surface as the packing rubber is compressed around the line. The line is completely surrounded and sealed from blow-out leakage by the action of the Hydraulic unit. There is no danger of packing rubber or other elements falling into the well.

The combination Blowout Preventer and Sucker Rod Stripper combines safety and economy in a tool designed to perform the necessary function of line wiping. It can be operated from anywhere on the derrick floor utilizing pressure from bottled nitrogen, an optional hand operated hydraulic pump, or the optional BOP control system (Fig. 1C). When this tool is employed of wire line operations, a CAVINS Ball Lock Oil Saver is screwed directly into the top of the Blowout Preventer. When swabbing, a short lubricator the length of the swab between the master gate and the Blowout Preventer is all that is required. The Blowout Preventer is available in either the 3" size with full 3" ID clearance and 4" female A.P.I. line pipe for the Ball Lock Oil Saver on top or the 4" size with full 4" ID clearance and 4" female A.P.I. line pipe threads top and bottom. Pressure connection is for 1/4" A.P.I. pipe. The units are tested to give full closure up to 3000 psi well pressure with no leakage. The full closure feature of the Blowout Preventer will give a temporary seal, allowing ample time to close the master gate should a well blowout occur.

As a Sucker Rod Wiper, the unit affords exceptionally long wiping service and complete control of the well against possible leakage or blowout. The rubber wiping unit is comparatively inexpensive and very easy to change.



Fig. 1A
Blowout Preventer
Model BP-50A (3" I.D.)



Fig. 1B
Blowout Preventer
Model S-BP-50B (4" I.D.)

B O P CONTROL SYSTEM

The BOP Control System provides the hydraulic power and controls necessary to operate the Cavins Blow Out Preventer and Rod Stripper during work-over operations (Fig. 1C). Due to its compact design, the unit takes up little space and also stores all accessories, controls and BOP equipment. The BOP accumulator is powered by rig air (26 CFM @ 100 PSI) to charge and maintain pressure stored in the system. The accumulator provides 3000 PSI + to the BOP, which gives an immediate closure or it can be manually operated by a 2 stage hand pump for stripping operations. The BOP Control System can be configured a variety of ways depending on what accessories or options are required by the customer.

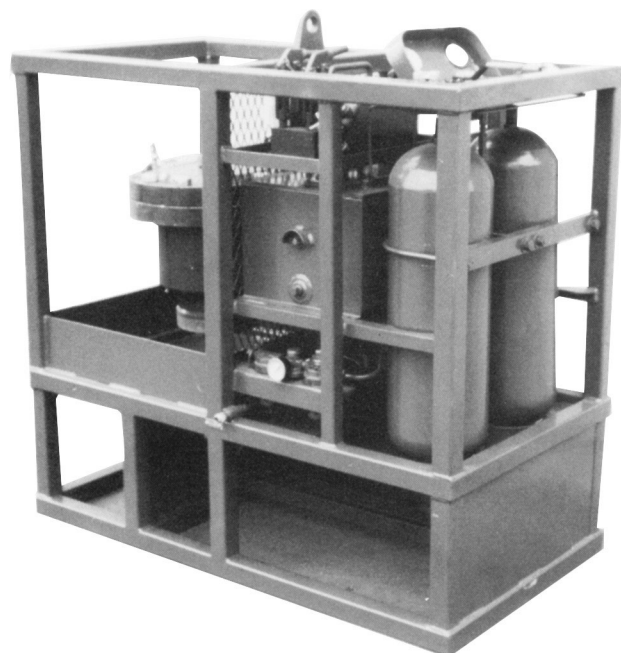
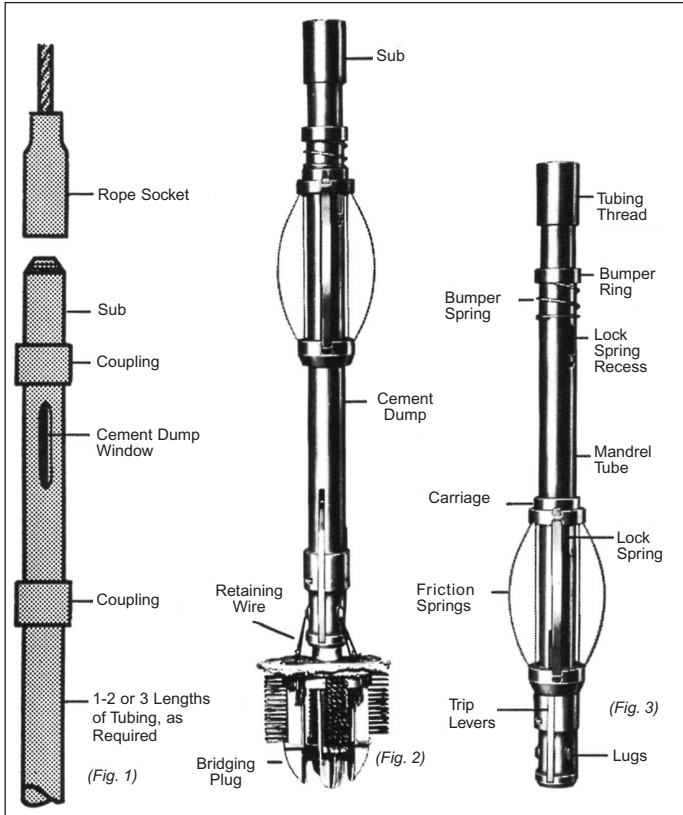


Fig. 1C

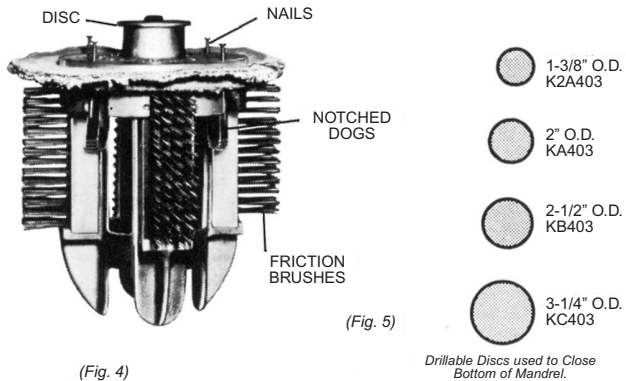
2853 Cherry Avenue
Long Beach, CA 90806
Ph: (562) 424-8564
Fax: (562) 595-6174

CEMENT DUMPS

Bridging Plugs and Quick-Change Rope Sockets



CAVINS BRIDGING PLUGS



The CAVINS Bridging Plug is made of drillable material and is used to form an off-bottom bridge on which cement, sand, and other materials can be dumped. Canvas seal rings form a base onto which the material to be dumped comes to rest when it is unloaded. Any tools used to drill out or break up cement will easily destroy the Bridging Plug. It is set in the Casing by attaching the disc on top of the Bridging Plug to the Cavins Cement Dump which is used as a setting tool and lowered to the desired point.

Raising the Cement Dump releases the Fingers which have secured the Plug to the bottom. When the Bridging Plug is thus released, notched dogs, which are spring loaded and hinged to swing outwardly, are also released and engaged with the Casing wall to secure the plug against downward movement.

Friction Brushes prevent ordinary movement of the plug until the engaging dogs take hold.

DRILLABLE DISCS

Part #	O.D.
K2A-403	1-3/8"
KA -403	2"
KB -403	2-1/2"
KC -403	3-1/4"

CAVINS – CEMENT DUMP

The CAVINS Cement Dump, a highly successful device is attached to the lower end of any desired number of tubular sections, equipped with a rope socket immediately above the loading window. The assembly is run on a Wire Line. The full opening of the cement dump is closed by means of a thin, drillable disc, which is positively released at any desired point in the well when the tool is raised by the hoist operator. This permits the placing of any desired amount of cement in a continuous operation. It eliminates the loss of time involved by waiting for previous loads of cement to set up and avoids the necessity of running into green cement on succeeding trips.

The cement slurry is discharged in a compact mass through the full open dump with the assurance that it will not be diluted by the well fluid. Fresh Water, sand mixed with oil, acid and concrete mixtures are readily dumped. The Cavins Cement Dump contains no valves or other parts which might become fouled or clogged. Accidental or premature unloading due to line whip or faulty brakes is avoided by the amount of free travel built into the friction spring assembly. The spring carriage is in its upper position when going into the well carrying the load of Cement. When pulling the Cement Dump up by the Wire Line, the friction springs retain the carriage in its position against the casing wall. As the cement Dump moves upward the carriage opens the toggles which hold the disc in place, thus releasing the load.

TECHNICAL DATA

Cement Dump		For Use in Casing O.D.
Size		
1-1/2"	2-A	4" to 4-3/4"
2"	A	5" TO 7-5/8"
2-1/2"	B	6-5/8" TO 10-3/4"
3"	C	10" TO 16"

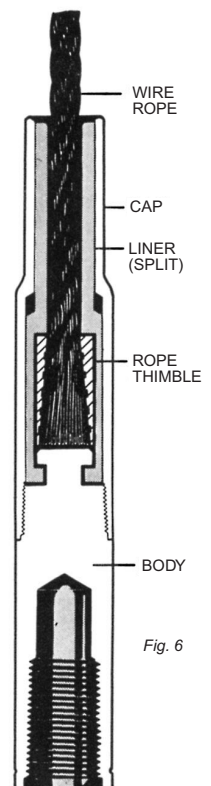
CAVINS "QUICK-CHANGE" ROPE SOCKET

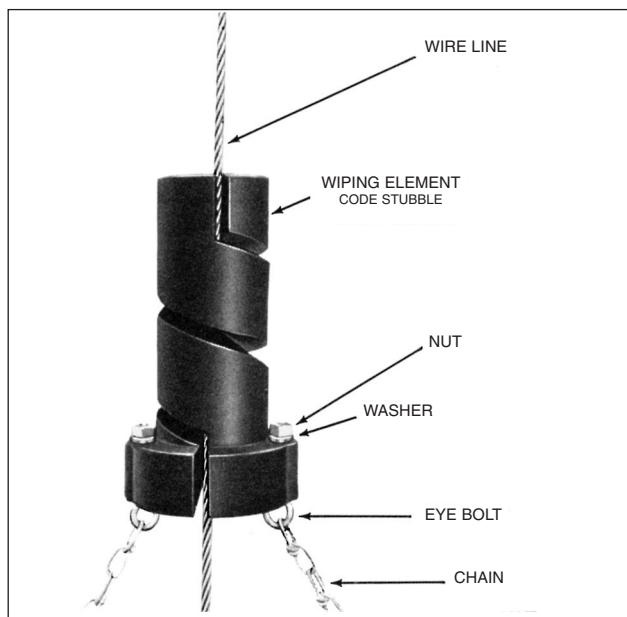
The CAVINS Quick-Change Rope Socket is a swivel type socket which does away with the necessity of having to babbit a rope socket to the sand line before starting each job and then cutting it off after the job is completed. Thus, it saves considerable time and eliminates the hazard of having to build fires near the well to melt the babbitt. A small steel thimble, which has a pull test of greater than 50% of the strength of the wire line, is permanently babbitted to the line. Alternately a resin type Babbitt material is now available which eliminates the need for open fire or hotwork. The thimble is kept on the line at all times and it is interchangeable with and fits all sizes of Cavins Quick-Change Rope Sockets. To remove one size socket from the line and install another one, takes only a few seconds time.

TECHNICAL DATA

Rope Socket O.D.	Size of Box Connections
1-5/8	3/4 API Sucker Rod Box
1-3/4	3/4 API Sucker Rod Box
2	1 x 1-1/2-8 THD 3" Taper
2-1/4	1-1/8 x 1-3/4-8 THD 2-5/8" Taper
2-1/2	1-1/8 x 1-3/4-8 THD 2-5/8" Taper
2-3/4	1-1/8 x 1-3/4-8 THD 2-5/8" Taper

NOTE: The above noted Box Connections are standard Cavins Joints. Any type of Joint can be cut on these Rope Sockets to customer's specifications.





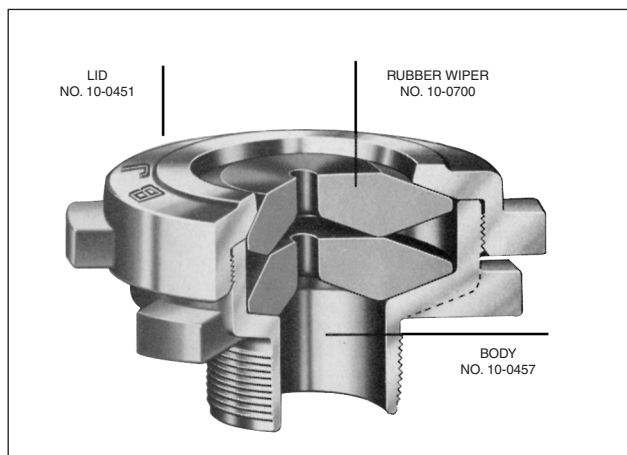
Wire Line "Pig Tail" Wiper



*9", 12" & 14" Flat Pipe Wiper
(Flat Pipe Wiper Holders are also available)*



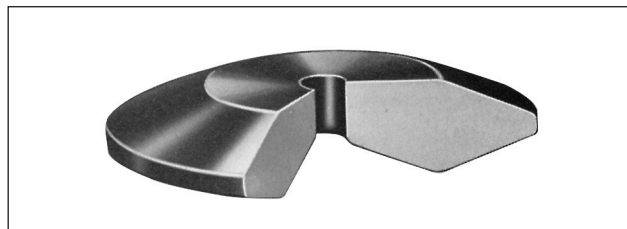
10" Handle Bar Pipe Wiper



Sucker Rod Wiper Holder



Tong Pullback Strap



Sucker Rod Wiper



Elevator Balancing Strap

2853 Cherry Avenue
Long Beach, CA 90806
Ph: (562) 424-8564
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CONVERTIBLE CAT-LINE GRIP



REGULAR AND ROLLER TYPE MODELS

Purpose: To assure that the cat-line is held securely at any desired point.

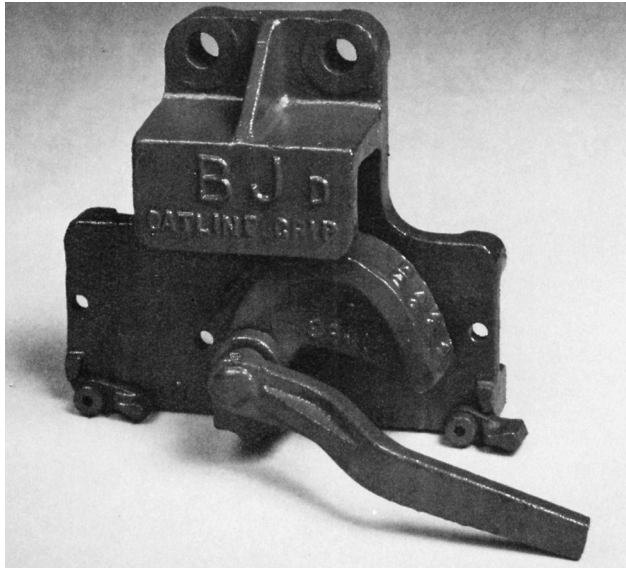
Description: The Cavins/BJ Convertible Cat-Line Grip has an eccentric cam type grip shaped to the contour of conventional 1-1/2" cat-line rope. The specially-shaped teeth, of this grip, when locked against the braking horizontal face, take a positive grip without damaging the cat-line rope.

Two Models: The Regular Model has direct access by the cat-line rope to the cam type grip. The Roller Type Model has a special outboard sheave that acts as a roller guide to give additional cat-line control where particular installations may benefit from added directional control.

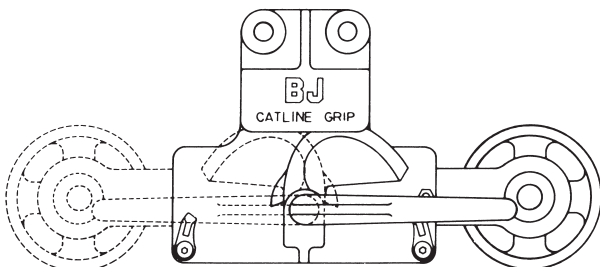
Special Convertible Feature: This Cavins/BJ Cat-Line Grip design is engineered to be readily convertible to either right or left hand gripping position both in Regular and Roller type models. Change to right or left position is done by simply removing the main pin holding the grip and control handle and switching the grip and handle direction. Similarly, the outboard sheave on the Roller Type model can be transposed, thus any Cavins/BJ Cat-Line Grip model can be converted from Driller's Side Right Hand Grip to Automatic Cathead Side Left Hand Grip or visa-versa.

Additional Features: Both Regular and Roller Type Models are additionally convertible in that the outboard roller sheave can be added to the Regular Model by a simple bolt-on arrangement or detached from the Roller Type Model when a Regular Type installation is desired.

Capacity: Both Regular and Roller Type models are designed to handle a 6000-lb. working load.



Cavins/BJ Regular Type Convertible Cat-Line Grip



Cavins/BJ Roller Type Convertible Cat-Line Grip

SPECIFICATIONS-ROLLER TYPE (RIGHT OR LEFT)

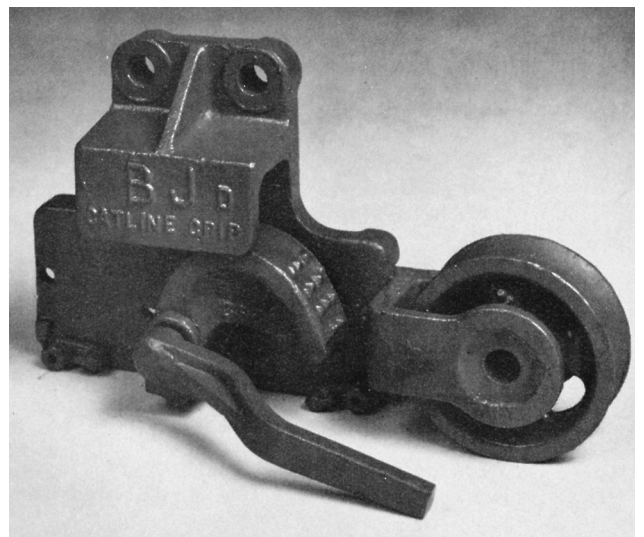
Order by Part Number and Part Name

Part Name	No. Req'd.	Part No. Left Hand	Part No. Right Hand
Roller Type Cat-Line Grip Complete	—	34701-1	34701
Cat-Line Grip Assembly	1	34700-1	34700
Body	1	34695	34695
Grip	1	10263	10263
Lever	1	23727	23727
Right Lock	1	10265-1	10265-1
Left Lock	1	10191	10191
Socket Head Shoulder Screw	2	940585-37	940585-37
Roll Pin	1	947129-182	947129-182
Sheave Housing Assembly	1	34699	34699
Sheave Housing	1	34697	34697
Sheave Assembly	1	23620-1	23620-1
Sheave	1	31666	31666
Grease Fitting	1	940308-1	940308-1
Sheave Pin	1	23619	23619
Socket Head Cap Screw	2	941286-71	941286-71
Lock Nut	2	941442-3	941442-3

SPECIFICATIONS-REGULAR TYPE (RIGHT OR LEFT)

Order by Part Number and Part Name

Part Name	No. Req'd.	Part No. Left Hand	Part No. Right Hand
Regular Cat-Line Grip Assembly	1	34700-1	34700
Body	1	34695	34695
Grip	1	10263	10263
Lever	1	23727	23727
Right Lock	1	10265-1	10265-1
Left Lock	1	10191	10191
Socket Head Shoulder Screw	2	940585-37	940585-37
Roll Pin	1	947129-182	947129-182



Cavins/BJ Roller Type Convertible Cat-Line Grip



"T" SAFETY CLAMPS

2853 Cherry Avenue
Long Beach, CA 90806
Ph: (562) 424-8564
Fax: (562) 595-6174

BAASH-ROSS® Type "T" Safety Clamps

- The Type "T" Safety Clamp is designed for small diameter pipe 1-1/8" through 4-1/2" O.D. Each link changes the effective working range approximately 1" in diameter.
- The positive automatic gripping principle is ideal to help safeguard against dropping strings of flush tubing, to provide a shoulder to position strings of flush line pipe for welding, and many other applications.

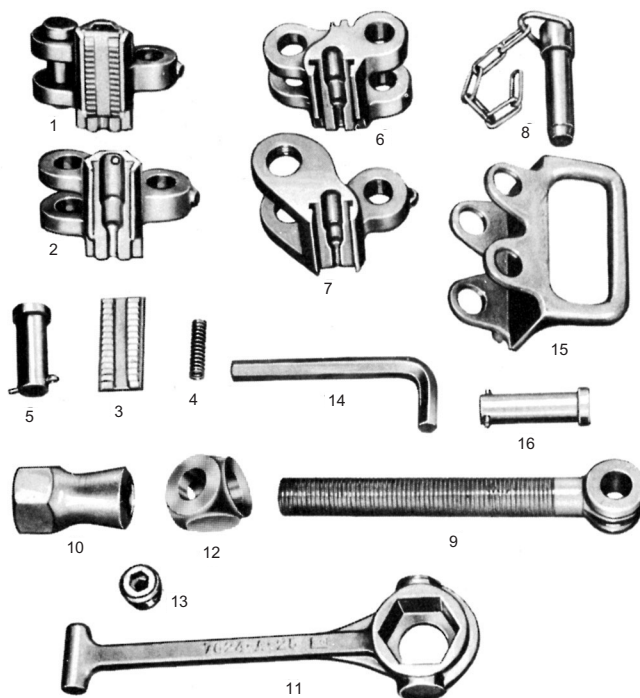
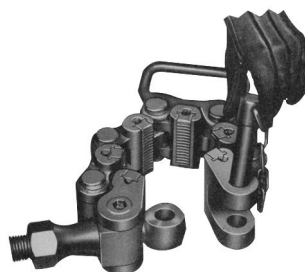
TABLE NO. 1
Type T Safety Clamp Complete With Box

Total No. Links Req'd. Per Range		Range O.D., Sizes		Part Number	Weight Lbs. Each
		From	To		
4		1-1/8"	2"	7624-5044	84
5		2-1/8"	3-1/4"	7624-5045	88
6		3-1/4"	4-1/2"	7624-5046	92

Replacement Parts				
Item No.	Item	No. Req'd.	Part Number	Weight Lbs. Each
1	Link Assembly, Complete	As Ordered	7624-B-7	4-1/4
2	Link, Intermediate	1	7624-A-18	3-1/4
3	Slip with Cotter	1	7624-A-21	1/4
3A	Cotter, for Slip (1/4")	1	900620-52	1/4 oz.
4	Slip Spring	1	7624-B-21	1/2 oz.
5	*Link Pin with Cotter	1	7624-C-5	3/4
5A	*Cotter, for Link Pin (3/16")	1	900620-36	1/4 oz.
6	End Link (Screw)	1	7624-A-20	4-1/2
7	End Link (Pivot Black)	1	7624-A-19	3-1/2
8	*End Link Pin with Chain	1	7624-F-5	1-1/4
9	*Screw	1	7624-A-5	4
10	*Nut	1	7624-B-5	1-1/2
11	*Nut Wrench	1	7624-A-25	3-1/2
12	*Pivot Block	1	7624-A-5000	1-1/2
13	*Pivot Block Pin	2	7624-D-5	1/4
14	*Pivot Block Pin Wrench	1	900533-12	1/8
15	Handle Assy.	1	7624-A-22	4
25	*Equipment Box	1	7624-A-9	45

*These Parts are interchangeable with the "C" Type Clamps.
Recommended Spare Parts for remote locations—3 pieces Intermediate Link (Item 2), 1 set Slips with retaining Cotter (Item 3), 3 pieces Link Pin with Cotter (Item 5), 1 set Slip Springs (Item 4).

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