



Overseas Technical Services Kish

Universal Hydraulic Disconnect

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Introduction:

- The Universal Hydraulic Disconnect is ball-operated emergency release device designed to be run in a coil tubing application to provide a method of separating from tools below the disconnect . This disconnect incorporates all features to withstand all forces encountered during fishing and milling operation. The universal hydraulic disconnect has a high shock load strength , high tensile strength rotationally and has a shorter length when compared to other hydraulic disconnect .



Features and Benefits:

- Able to withstand any jarring and impacting operation
- Debris barrier system
- Unique locking mechanisms with adjusting ring
- Rotationally locked for downhole motor and torque applications
- Available torque through feature available for fishing operations
- Circulations ports for flowing through disconnected tool



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Specification Guide

Material No.	Tool Size (in.)	Service	ID (in.)	OAL (in.) Shoulderto Shoulder	Tensile Strength (lbs)		Fishing Neck Size (in.)	Largest Ball Size (in.)	Max Torque (ft/lbs)	Thread Conn (in.)	
					Through Tool	Through Neck					
H132-09-1005	1.69	Standard	0.440	14.430	35,573	33,240	2 "GS"	0.625	1,091	1 AM MT	
H132-09-1006		Sour			38,807	31,024			991		
H132-09-1007		Standard	0.531		35,573	33,240			1,091		
H132-09-1008		Sour			38,807	31,024			991		
H132-09-2013	2.13	Standard	0.440	14.577	69,840	58,680	2-1/2 "GS"	0.75	1,946	1-1/2 AM MT	
H132-09-2014		Sour			65,184	54,768			1,816		
H132-09-2015		Standard	0.560		69,840	58,680			1,946		
H132-09-2016		Sour			65,184	54,768			1,816		
H132-09-2017		Standard	0.690		69,840	58,680			1,946		
H132-09-2018		Sour			65,184	54,768			1,816		
H132-09-2005	2.88	Standard	0.560	15.495	104,411	111,696	0.875	0.875	5,166	2-3/8 PAC DSI	
H132-09-2006		Sour			96,379	120,288			5,564		
H132-09-2007		Standard	0.810		104,411	111,696			5,166		
H132-09-2008		Sour			96,379	120,228			5,564		
H132-09-3009	3.13	Standard	0.810	16.517	148,320	87,584	3 "GS"	0.875	5,478	2-7/8 PAC DSI	
H132-09-3010		Sour			138,432				5,113		
H132-09-3011		Standard	1.000		148,320				5,478		
H132-09-3012		Sour			138,432				5,113		
H132-09-3013	3.50	Standard	0.810	20.168	148,320		1.125	0.875	5,478	2-3/8 Reg	
H132-09-3014		Sour			138,432				5,113		
H132-09-3015		Standard	1.000		148,320				5,478		
H132-09-3016		Sour			138,432				5,113		
H132-09-3005	3.50	Standard	1.00	19.458	108,005	291,720	3-1/2 "GS"	1.25	6,098	2-7/8 PAC DSI	
H132-09-3006		Sour			7,036	7,036					
H132-09-3007		Standard	1.25		6,098	6,098					
H132-09-3008		Sour			7,036	7,036					



Shear Screw Chart

Number of Shear Screws	OD (in.)				
	1.69	2.13	2.88	3.13	3.50
	Pressure required to disconnect (psi)				
1	1,530	830	1,133	810	1,000
2	3,060	1,660	2,267	1,621	2,000
3	4,590	2,490	3,400	2,431	3,000
4	6,120	3,320	-	-	-



Rupture Disk Chart

Material No.	Rupture Pressure (psi)	Minimum Rupture Pressure (psi)	Maximum Rupture Pressure (psi)
HWV-AST7-001	1,000	970	1,060
HWV-AST7-003	2,000	1,940	2,120
HWV-AST7-005	3,000	2,910	3,180
HWV-AST7-007	3,300	3,201	3,498
HWV-AST7-009	4,000	3,880	4,240
HWV-AST7-011	4,500	4,365	4,700
HWV-AST7-013	5,000	4,850	5,300
HWV-AEP7-017	5,500	5,335	5,830
HWV-AEP7-020	6,000	5,820	6,360
HWV-AEP7-024	6,500	6,305	6,890

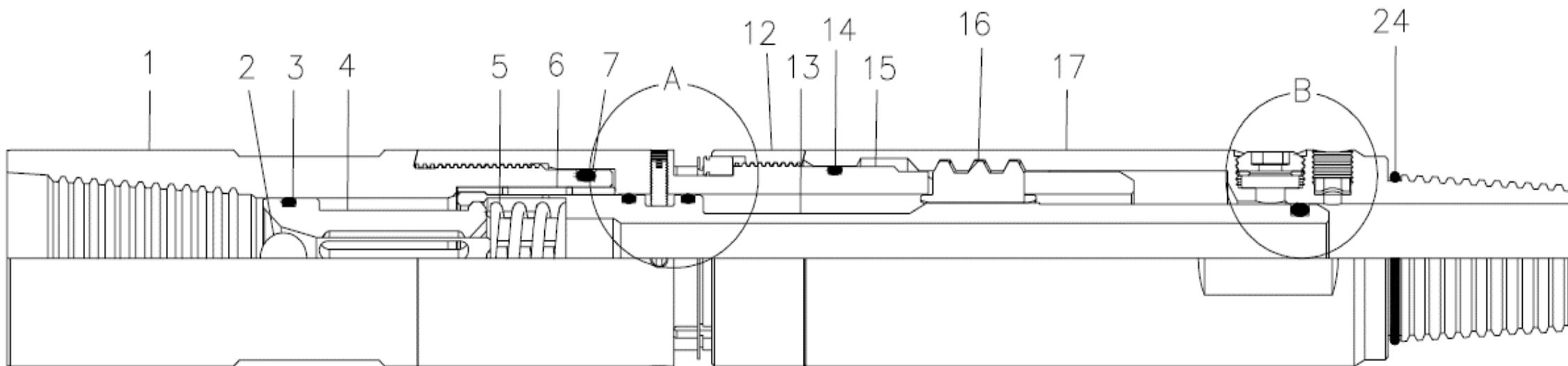


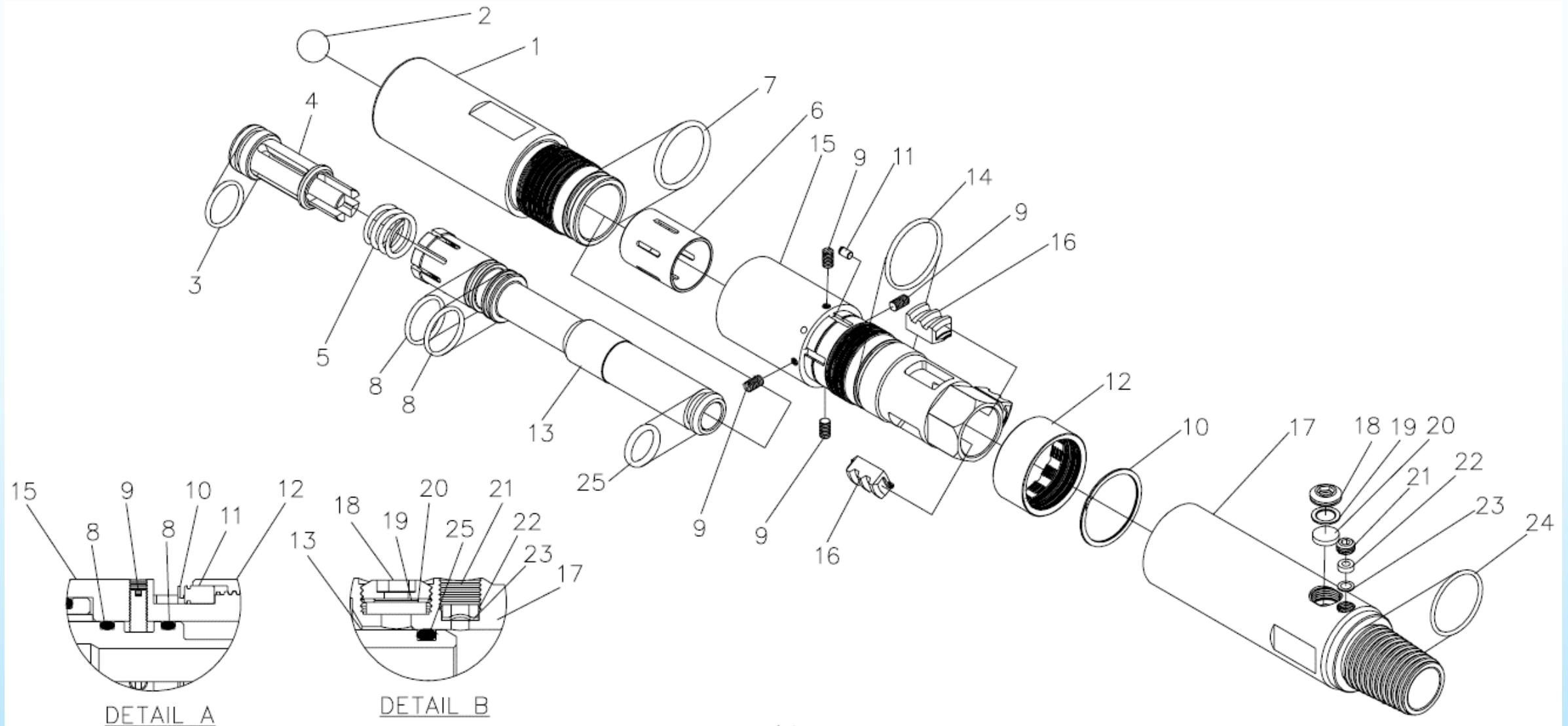
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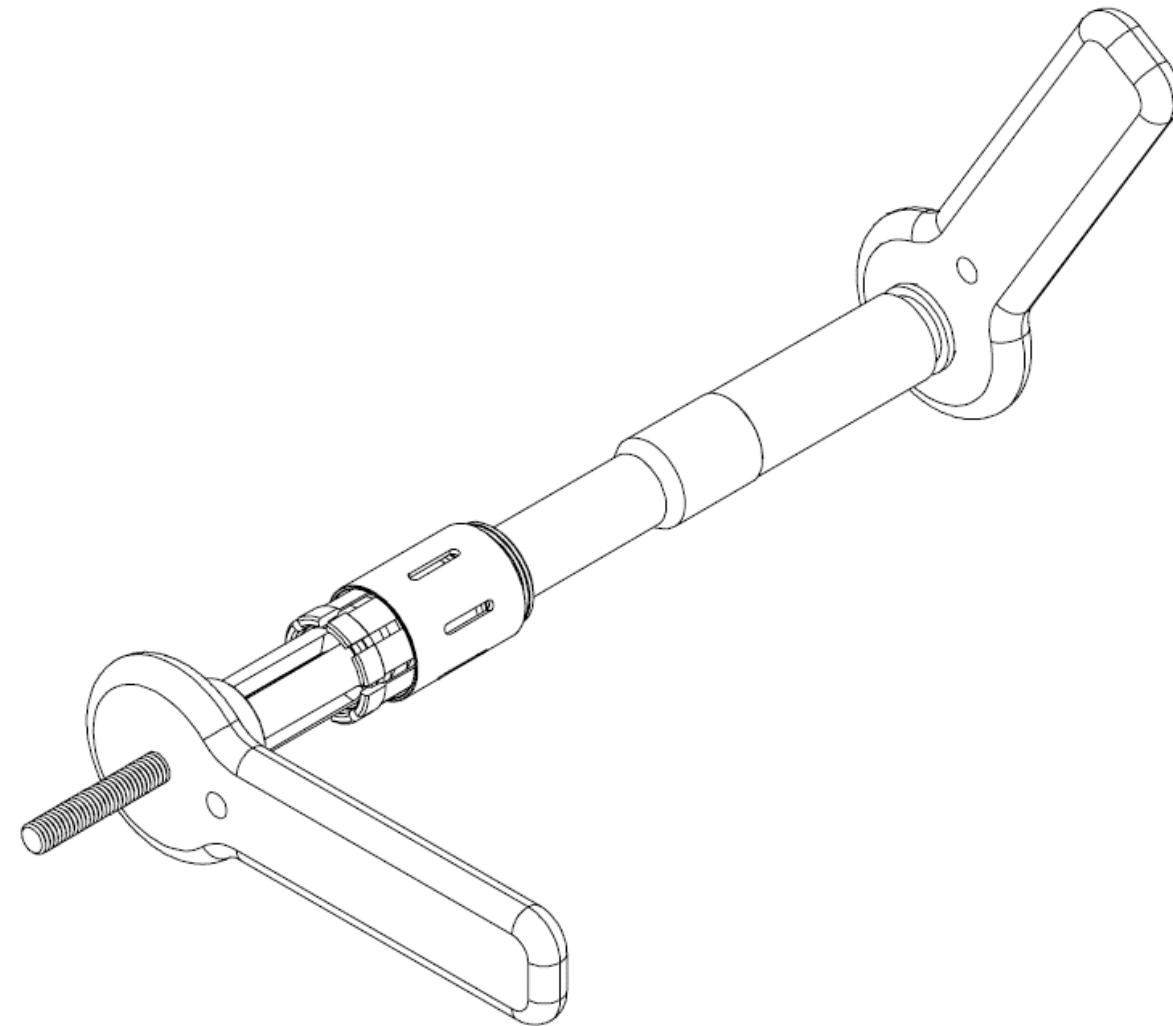
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Item No.	Description	Amount
1	Top Sub	1
2	Steel Ball	1
3	O-ring	1
4	Piston	1
5	Compressing Ring	1
6	Collet Sleeve	1
7	O-ring	1
8	O-ring	2
9	Shear Screw	4
10	Retaining Ring	1
11	Locking Pin	1
12	Adjusting Ring	1
13	Collet	1

Item No.	Description	Amount
14	O-ring	1
15	Dog Housing	1
16	Dog	3
17	Seating Dog	1
18	Filter Plug	1
19	Washer	1
20	Snubber Filter	1
21	Hold Down Plug	1
22	Hold Down Ring	1
23	Rupture Dist	1
24	O-ring	1
25	O-ring	1
26	-	-

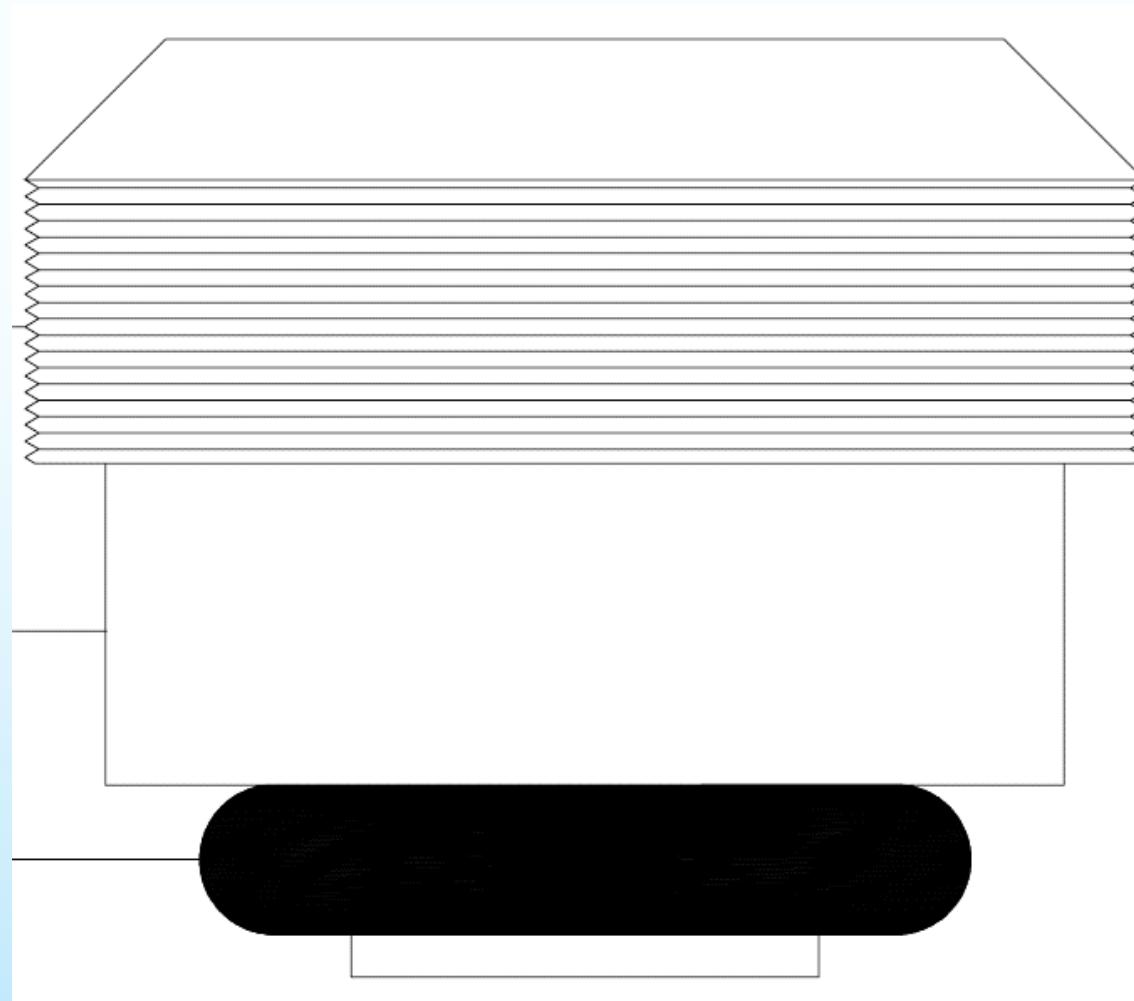


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➤ Required Hand Tools

- Pipe Wrench
- Allen Key
- Rubber Hammer
- Bowl
- Flat Bar





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- Remove shear screws (9) from the dog housing (15).



A





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➤ Expand retaining ring (10) and slide up and away from the locking pin (11).





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- Slide the locking pin (11) out from under the adjusting ring (12) and remove.

A



B





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➤ Un-tighten the adjusting ring (12).

A



B





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➤ Un-thread the top sub (1) from the dog housing (15).

A



B





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➤ Pull the piston (4), spring (5), collet sleeve (6) and collet (13) from the dog housing (15).

A



B





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➤ Insert the all thread assembly tool through the piston (4) and the collet. Tighten to unload the spring (5).

A



B





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➤ Slide the collet sleeve (6) off of the collet (13). Loosen the nut on the all thread and remove complete compression on the spring.



- **Note:** do not slide the collet sleeve (6) without the all-thread assembly install. The spring (5) is under high load and can result in injury.



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➤ Pull the dog housing (15) out of the seating dog (17) and remove the O-ring (14) and adjusting ring (12) from the dog housing (15).





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- Remove the retaining ring (10) and dogs (16) from the dog housing (15).

A



B





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➤ Remove the filter plug (18), washer (19) and snubber filter (20) from the seating dog (17).



A



B



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- Remove the filter plug (18), washer (19) and snubber filter (20) from the seating dog (17).



C



D



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- Remove the filter plug (18), washer (19) and snubber filter (20) from the seating dog (17).

E



F



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➤ Remove the hold down plug (21), hold down ring (22), rupture disk (23) and O-ring (24) from the seating dog (17).

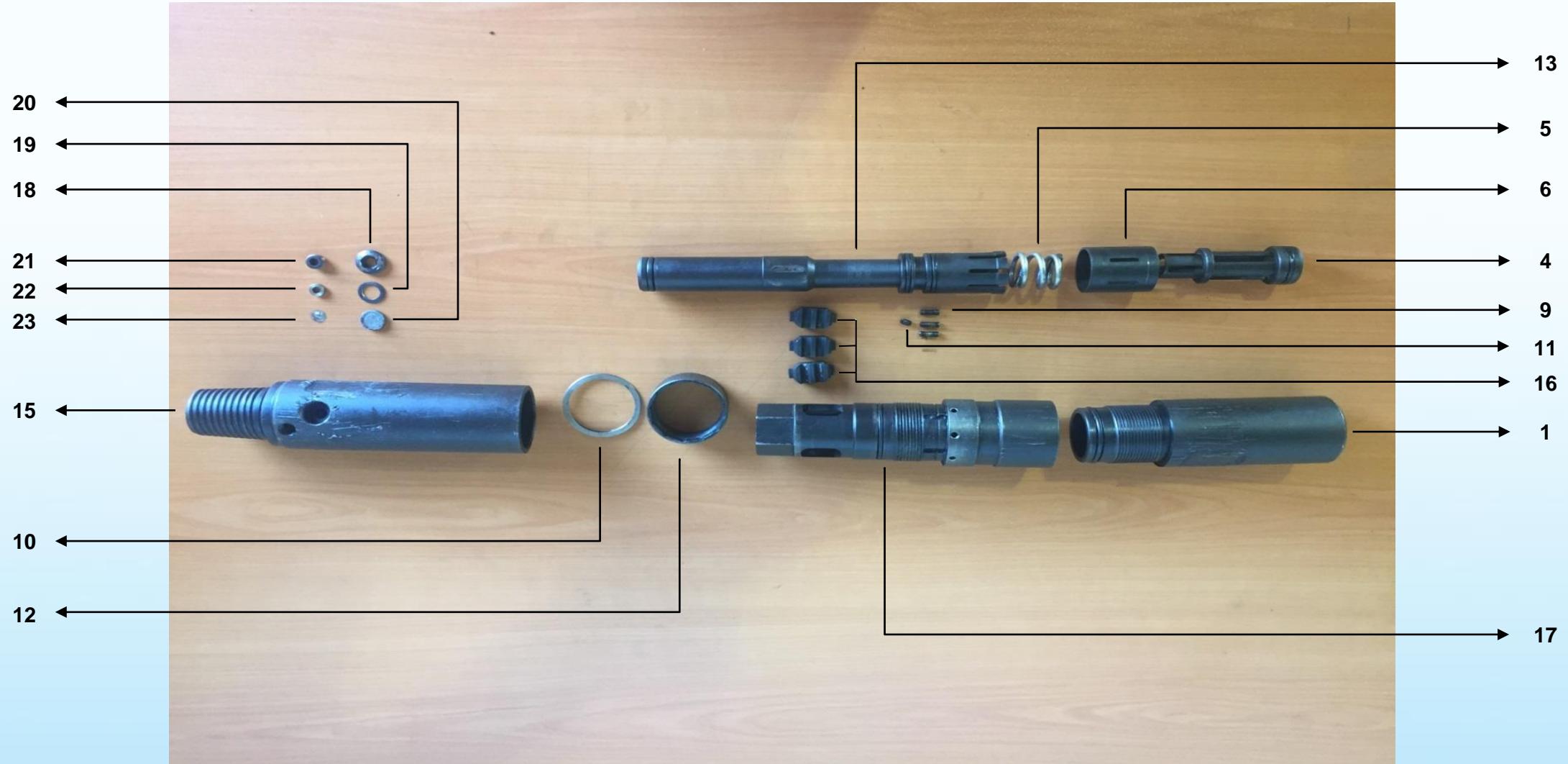


B





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Item No.	Description	Amount
1	Top Sub	1
2	Steel Ball	1
3	O-ring	1
4	Piston	1
5	Compressing Ring	1
6	Collet Sleeve	1
7	O-ring	1
8	O-ring	2
9	Shear Screw	4
10	Retaining Ring	1
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Item No.	Description	Amount
14	O-ring	1
15	Dog Housing	1
16	Dog	3
17	Seating Dog	1
18	Filter Plug	1
19	Washer	1
20	Snubber Filter	1
21	Hold Down Plug	1
22	Hold Down Ring	1
23	Rupture Dist	1
24	O-ring	1
25	O-ring	1
26	-	-



Assembly

- Install O-ring (24), snubber filter (20), washer (19) and filter plug (18) onto seating dog (17).

A



B



Overseas Technical Services Kish

➤ Install O-ring (24), snubber filter (20), washer (19) and filter plug (18) onto seating dog (17).

A



B





Overseas Technical Services Kish

➤ Install O-ring (24), snubber filter (20), washer (19) and filter plug (18) onto seating dog (17).

A



B





Overseas Technical Services Kish

➤ Install rupture disk (23), hold down ring (22) and hold down plug (21) onto seating dog (17).



A

B



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➤ Slide retaining ring (10) over the bottom end of dog housing (15) over thread and against shoulder by the shear screw holes.

A



B





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➤ Make up adjusting ring (12) followed by O-ring (14).

A



B





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➤ Snap compression spring (5) inside of collet (13) top and slide piston (4) inside of spring (5).

A



B





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- Slide collet sleeve (6) over the bottom of the collet (13).

A



B





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➤ Slide the all-thread assembly tool thru the collet (13) and the piston (4). Tighten up on bottom of tool to compress the spring (5) inside of the collet (13).



A

B





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- Slide the all-thread assembly tool thru the collet (13) and the piston (4).



B

* Note: do not over compress the spring (5) as this will result in damage to the spring. Stop when the collet fingers snap back down allowing the collet sleeve to slide over the top of the collet fingers.



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- Insert dogs (16) into lower end of dog housing (15) and push out through slots in the housing. Slide the bottom of the dog housing over the top end of the assembly tool until the adjusting ring (12) bumps the seating dog (17).





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A



B





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➤ Slide the top sub (1) over the piston (4) and collet (13) until the top shoulders on the collet sleeve (6).



A



B



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- Slide this assembly into the dog housing (15) and push the assembly tool out of the seating dog (17). Make up the top sub (1) to the dog housing (15). Insert shear screws (9) into the dog housing.

A



B





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Well Done!