Hydraulic Fishing / Drilling Jar

The Wenzel Downhole Tools Hydraulic Jar (HJ) is a single acting jar designed primarily for fishing applications, jarring in the upward direction. Hydraulically operated, with impact force controlled by the operator, the HJ is ideally suited for fishing, coring, milling or other downhole applications.

Features and Benefits

- The HJ is hydraulically controlled and jars in the up direction, with impact force controlled by the operator.
- Impact force is controlled by a metering device that ensures consistent delay times over the full range of operating temperatures.
- A long splined mandrel ensures the jar is not affected by torsional forces. These splines are sealed and lubricated to minimize friction and provide long wear life.
- While this jar is designed to be rugged enough for drilling applications, it is intended for fishing, coring, and milling applications.
- A free stroke of 4" to 6" (depending on tool size) provides an impact force to the stuck point several times higher than the overpull force applied to the jar.
- Standard seals in the tool are effective to 250°F (120°C). The jar can be dressed with seals effective to 400°F (200°C) for hot hole environments. External sealing surfaces are tungsten carbide-coated to enhance wear and corrosion resistance.

Operation

Jarring Up

- The Hydraulic Jar (HJ) should be run in the hole in the open position.
- HJ is activated by applying upward pull from the closed position.
- The amount of upward impact force can be changed by varying the amount of overpull applied at surface. See the table for the maximum pull during delay.
- When upward overpull has been applied, the jar will fire after a timed delay. The delay is reduced as upward force is increased.
- After the jar strikes an upward blow, re-setting is quickly accomplished by lowering the drillstring until the jar is in the closed position.

Hydraulic Fishing / Drilling Jar Specifications

IMPERIAL

Nominal OD (inch)	Length (feet)	Thru Bore (inch)	Tensile Yield (lbs)	Torsional Limit (ft lbs)	Max Pull During Delay (lbs)	Free Stroke (inch)	Total Stroke (inch)
3.12	9.5	1.00	198 000	6 600	41 000	7.0	11.0
3.38	9.0	1.50	235 000	7 400	50 000	4.0	8.5
3.75	9.2	1.25	196 000	10 100	60 000	4.0	8.0
4.25	9.5	2.00	301 000	13 800	70 000	4.0	8.5
4.75	11.2	2.25	352 000	16 100	75 000	6.5	11.0
5.00	10.2	2.25	352 000	23 300	85 000	6.5	11.0
6.25	9.7	2.25	868 000	35 000	130 000	6.5	11.0
6.50	11.5	2.25	868 000	44 000	150 000	6.5	11.0
7.75	9.2	3.00	900 000	79 600	220 000	6.5	11.0
8.00	10.6	3.00	900 000	86 900	240 000	6.5	11.0
9.00	11.3	3.00	1 288 000	128 800	270 000	6.0	10.5

METRIC

Nominal OD (mm)	Length (m)	Thru Bore (mm)	Tensile Yield (daN)	Torsional Limit (N·m)	Max Pull During Delay (daN)	Free Stroke (mm)	Total Stroke (mm)
79	2.9	25	88 100	8 900	18 200	180	280
86	2.7	38	104 500	10 000	22 200	100	220
95	2.8	32	87 200	13 700	26 700	100	200
108	2.9	51	133 900	18 700	31 100	100	220
121	3.4	57	156 600	21 800	33 400	170	280
127	3.1	57	156 600	31 600	37 800	170	280
159	2.9	57	386 100	47 500	57 800	170	280
165	3.5	57	386 100	59 700	66 700	170	280
197	2.8	76	400 300	107 900	97 900	170	280
203	3.2	76	400 300	117 800	106 800	170	280
229	3.4	76	572 900	174 600	120 100	150	270

Specifications are based on as new condition and are subject to change without notice.