



ULTIMATE
DRILLING JARS

**IN TODAY'S
MARKET
YOU NEED
A BIGGER**

HAMMER!

Dramatically increase the allowable overpull force and leave your competition in the dust.



ULTIMATE DOUBLE ACTING HYDRAULIC DRILLING JAR

The advantage of the Ultimate Double Acting Hydraulic Drilling Jar is its ability to dramatically increase the allowable overpull force during detent. This patented 'Max Pull During Delay' feature is designed to take advantage of higher tensile forces available on modern rigs and with the premium strength drill pipe being used in industry. WZL's Ultimate Drilling Jars' proprietary design can handle significantly higher overpull forces during delay than other typical jars.

The Ultimate Double Acting Hydraulic Drilling Jar is a bi-directional drilling jar incorporating hydraulic delay without a latch mechanism. This jar will allow the operator to apply variable impact in both the up and down directions. It is intended for use in highly deviated or high friction wells, where conditions may prevent applying sufficient force to release a mechanical latch.

FEATURES

- The UHJDA is hydraulically controlled and jars in both directions, 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.
- The UHJDA operates via a simple up and down motion and is unaffected by right- or left-hand torque.
- Standard seals are suitable for use up to 250°F (120°C). Optional high temperature seal kits are available for service to 400°F (200°C). External sealing surfaces are tungsten carbide-coated to enhance wear and corrosion resistance.

OPERATION

Jarring Up

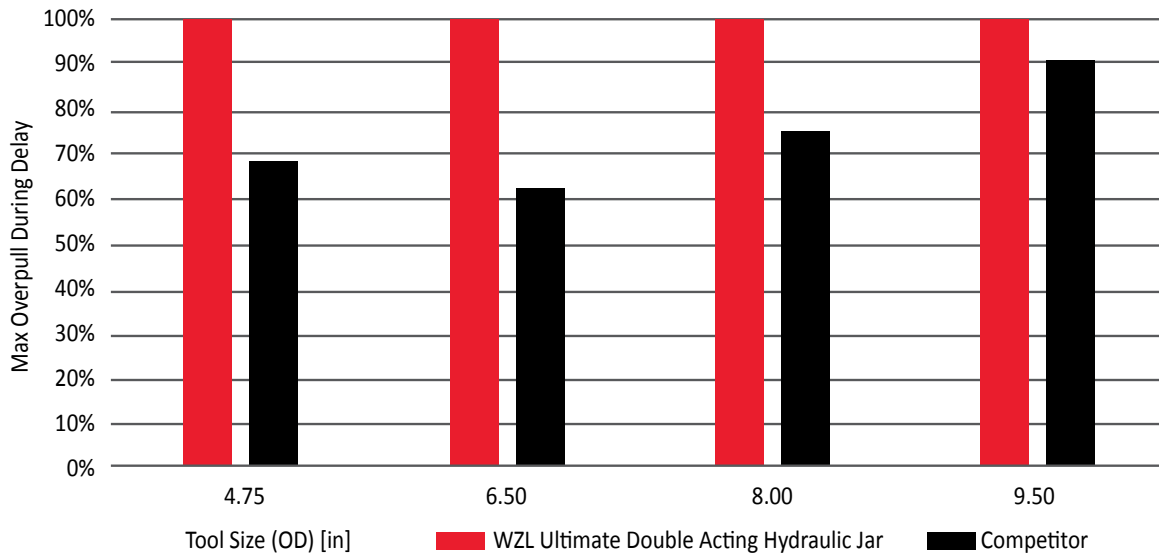
- With the jar in the neutral position, apply the desired overpull in excess of the free string weight, starting the hydraulic delay sequence. At the end of the hydraulic delay, the jar will release causing an upward impact force.
- If necessary, lower the drill string sufficiently to close the jar to the neutral position, ready to jar up again.

Jarring Down

- With the jar in the neutral position, lower the drill string to apply the desired down force, starting the hydraulic delay sequence. At the end of the hydraulic delay, the jar will release causing a downward impact force.
- If necessary, raise the drill string sufficiently to open the jar to the neutral position, ready to jar down again.



WZL HIGH OVERPULL JAR COMPARISON



SPECIFICATIONS

Imperial

Nominal OD (inch)	Length (ft)	Thru Bore (inches)	Tensile Yield (lbs)	Torsional Limit (ft lbs)	Max Pull During Delay (lbs)	Free Stroke Up (inches)	Free Stroke Down (inches)	Total Stroke (inches)
4.75	22.0	2.25	370 600	21 500	132 000	8.0	8.0	25.0
6.50	23.1	2.75	1 220 000	58 000	275 000	8.0	8.0	25.0
6.75	22.7	2.75	1 220 000	66 000	290 000	8.0	8.0	25.0
7.00	22.7	2.75	1 220 000	66 000	290 000	8.0	8.0	25.0
8.00	23.2	2.81	1 293 900	103 200	400 000	8.0	8.0	25.0
9.50	24.1	3.00	2 106 900	189 300	550 000	8.0	8.0	25.0

Metric

Nominal OD (mm)	Length (m)	Thru Bore (mm)	Tensile Yield (daN)	Torsional Limit (N-m)	Max Pull During Delay (daN)	Free Stroke Up (mm)	Free Stroke Down (mm)	Total Stroke (mm)
121	6.7	57	164 800	29 100	58 700	200	200	640
165	7.0	70	542 700	78 600	122 300	200	200	640
171	6.9	70	542 700	89 500	129 000	200	200	640
178	6.9	70	542 700	89 500	129 000	200	200	640
203	7.1	71	575 500	139 900	177 900	200	200	640
241	7.3	76	937 100	256 700	244 600	200	200	640



ULTIMATE HYDRAULIC/MECHANICAL DRILLING JAR

The advantage of the Ultimate Hydraulic/Mechanical Drilling Jar is its ability to dramatically increase the allowable overpull force during detent. This patented 'Max Pull During Delay' feature is designed to take advantage of higher tensile forces available on modern rigs and with the premium strength drill pipe being used in industry. WZL's Ultimate Drilling Jars' proprietary design can handle significantly higher overpull forces during delay than other typical jars.

The Ultimate Hydraulic/Mechanical Drilling Jar is a double acting jar, designed to deliver hydraulic delay when jarring in the up direction, and mechanical release when jarring in the down direction. This jar incorporates a latch mechanism to keep the jar locked in the neutral position and eliminate unexpected jarring while tripping or racking on the derrick.

FEATURES

- The Jar is normally operated in the latched position to reduce unexpected jarring while drilling, and eliminate movement between jar components to increase service life.
- The Jar operates with a simple up and down motion and is not affected by torque.
- The spline drive and latch mechanism are enclosed in a single, sealed oil chamber without ports that might fill with cuttings and restrict the down jar stroke.
- The hydraulic delay mechanism is located in a separate chamber to prevent contamination and increase reliability.
- With the latch mechanism in the cocked or latch position, the inner mandrel and outer housing act integrally, virtually eliminating seal and inner tool wear during normal drilling conditions. There is no need to extend or open the jar before running in the hole.
- 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.
- The Jar can be run in tension or in compression within the preset latch settings.

OPERATION

Jarring Up

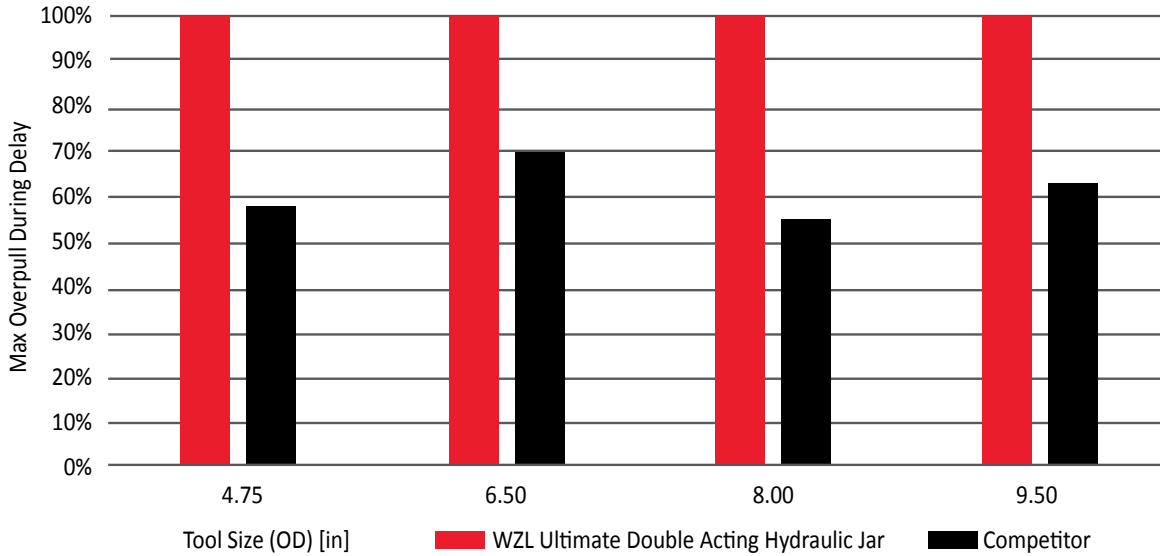
- Jarring up is achieved by applying sufficient overpull to overcome the latch setting, which initiates the hydraulic time delay. During the time delay, the overpull at surface can be adjusted to vary the impact force.
- After impact, apply a down force sufficient to close jar and re-engage latch, then repeat the jarring cycle as required.

Jarring Down

- Jarring down is achieved by applying sufficient downward force to overcome the latch setting and pump open force. At that point, the Jar will release and jar downward.
- After impact, pick up the work string to re-engage the mechanical latch then repeat the jarring cycle as required.



WZL HIGH OVERPULL JAR COMPARISON



SPECIFICATIONS

Imperial

Nominal OD (inch)	Length (ft)	Thru Bore (inches)	Tensile Yield (lbs)	Torsional Limit (ft lbs)	Pump Open Area (in ²)	Nominal Up Latch Setting (lbs)	Nominal Down Latch Setting (lbs)	Max Pull During Delay (lbs)	Free Stroke Up (inches)	Free Stroke Down (inches)	Total Stroke (inches)
4.13	18.9	2.00	280 000	15 000	9.0	45 000	25 000	110 000	5.0	6.0	15.0
4.75	19.6	2.25	391 000	20 000	11.8	55 000	30 000	132 000	5.0	6.0	15.0
5.25	19.6	2.25	391 000	31 500	11.8	55 000	30 000	132 000	5.0	6.0	15.0
6.25	20.5	2.25	777 000	48 500	19.6	90 000	40 000	250 000	5.0	6.0	15.0
6.50	20.5	2.25	777 000	52 400	19.6	90 000	40 000	250 000	5.0	6.0	15.0
6.62	20.6	2.75	722 500	53 800	21.7	90 000	40 000	250 000	5.0	6.0	15.0
6.75	20.5	2.75	907 500	48 800	23.8	95 000	42 000	270 000	5.0	6.0	15.0
8.00	20.7	2.81	949 000	98 000	30.7	100 000	45 000	400 000	5.5	6.0	15.0
10.00	21.9	3.00	1 658 500	182 200	44.2	110 000	50 000	580 000	5.5	6.0	15.0

Metric

Nominal OD (mm)	Length (m)	Thru Bore (mm)	Tensile Yield (daN)	Torsional Limit (N-m)	Pump Open Area (mm ²)	Nominal Up Latch Setting (daN)	Nominal Down Latch Setting (daN)	Max Pull During Delay (daN)	Free Stroke Up (mm)	Free Stroke Down (mm)	Total Stroke (mm)
105	5.8	51	124 500	20 300	5 800	20 000	11 100	48 900	130	150	380
121	6.0	57	173 900	27 100	7 600	24 500	13 300	58 700	130	150	380
133	6.0	57	173 900	42 700	7 600	24 500	13 300	58 700	130	150	380
159	6.3	57	345 600	65 800	12 700	40 000	17 800	111 200	130	150	380
165	6.3	57	345 600	71 000	12 700	40 000	17 800	111 200	130	150	380
168	6.3	70	321 400	72 900	14 000	40 000	17 800	111 200	130	150	380
171	6.2	70	403 700	66 200	15 300	42 300	18 700	120 100	130	150	380
203	6.3	71	422 100	132 900	19 800	44 500	20 000	177 900	140	150	380
254	6.7	76	737 700	247 000	28 500	48 900	22 200	258 000	140	150	380

A dark gray silhouette of a world map is centered in the background of the advertisement.

We're everywhere you need us to be

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