NORTHSTAR

Hydraulic Jars

2007 - Drillstem Testing

Description

The Hydraulic Jars allow jarring of the test string to aid in the freeing of down-hole tools. The jar provides a temporary resistance that allows the drill pipe to be stretched. When the resistance is release, the drill pipe contracts to deliver the impact and freeing force.

Applications

Freeing stuck section of the drill string in cased hole or open hole testing operations.

Operation

Pulling on the drill string at surface will allow for tubing stretch and mandrel movement upward as hydraulic fluid is restricted against the resistance valve and the lower jar body and lower portion of the string remain fixed. Once the travel in the hydraulic chamber is used up, the jar body will fire rapidly upwards to free the stuck zone below. The HJ is easily reset by putting weight on the drill string and filling up the hydraulic chamber for repeat jarring.

Specifications

	STANDARD	SLIMHOLE
O.D.	5"	3.125"
I.D.	1.25"	1.125"
Length	2.03 m (6.66')	2.03 m (6.66')
Mandrell Torque	2,500 ft lb	2,500 ft lb
Body Joint Torque	7,000 ft lb	7,000 ft lb
High Pull	50,000 lb	38,000 lb
Time to Fire	30-60 seconds	30-60 seconds
Low Pull	10,000 lbs	10,000 lbs
Time to Fire	2 to 5 minutes	2 to 5 minutes
Pressure Rating	5,000 lbs	5,000 lbs
Temperature Rating	-40°F to 250°F	-40°F to 250°F
Tensile Strength	290,000 lbs	120,000 lbs
Connections	3 ½ IF	2 3/8 IF
Service	H2S + CO2	H2S + CO2