## **Features and Benefits**

- Sealed, Oil Lubricated for Longer Service Life
- Mechanical Safety Latch
- Simple Up and Down Motion to Operate
- Upward Jarring with Hydraulic Delay
- Downward Jarring "Mechanically"
- Adjustable Latch Release Settings

## **Specifications**

- Tool Size (OD)
  - 4.75 in (121mm)
- Tool Size (ID)
  - 2.25 in (57 mm)
- Maximum Jar Load | Up/Down
  - **75,000 lbf** (333,600 N)
- Torsional Yield Strength
  - 16,000 lbf (21,600 N)
- Total Stroke
  - 12 in (292 mm)
- Up Latch Setting
  - STD 40,000 lbf (177,900 N)
  - MAX 55,000 lbf (244,600 N)
- Down Latch Setting
  - STD 18,000 lbf (80,000 N)
  - MAX 24,750 lbf (110,000 N)
- Pump Open Area
  - 6.5 in<sup>2</sup> (4,200 mm<sup>2</sup>)
- Length Latched Position
  - 12.7 ft (3.9 m)
- Weight
  - 550 lbs (250 kg)

## FIELD SERVICES

## 475 Drilling Jar

True North's Hydraulic Mechanical Drilling Jar is well suited for all drilling operations. The jar was developed to overcome shortcomings associated with purely hydraulic or mechanical jars, yet retain the advantages of both concepts. This jar combines a mechanical "safety" latch with a hydraulic delay sequence on the up jarring stoke. The down jarring stroke is achieved mechanically. To jar upward, overpull is applied to the drill string until the preset mechanical latch setting is overcome and the jar enters the hydraulic delay sequence. The desired overpull above free string weight is then taken as the jar continues to slowly open under hydraulic restriction (delay) with the draw works brake applied. After the hydraulic delay, the jar enters the free stroke and the mandrel accelerates to the fully extended position creating a jarring impact. Simply lowering the drill string resets the latch. The jar is then ready for another jarring cycle or to resume normal drilling operations.

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