

**DYNO-JARS**  
**ALL SIZES**

**DYNOMAX**  
DRILLING  
TOOLS INC



### **PERFORMANCE DESIGN**

DynoMax drilling jars feature the latest in 'performance design'.

Dyno-Jars have been designed to maximize oil flow in top of tool, which will not only increase jarring impact with lighter pull on drill string, but it also increases safety because there is no need to overpull the drilling rig.

A longer stroke length than most drilling jars maximizes jarring impact and increases overall drill string movement. Pressure compensation top and bottom increases jarring impacts because internal pressure does not buildup. This pressure compensation also increases seal life due to zero pressure differential, and it also minimizes pump-open force giving more accurate pull calculation.

A stronger latch gives better jarring repeatability, and the improved Dyno-Jar latch design provides better wear characteristics to give longer life in extended jarring operations. Large oil reservoirs provides excellent lubrication during operation and help keep the jar cooler during use.

DynoMax drilling jars are designed to fit most mouse holes for ease of connection with drill strings.



### **OPERATING PROCEDURES**

#### **JARRING UP**

Each jar is sent to the field with a preset latch up value & delay time. Upwards pull force must be able to overcome the preset latch value plus the drill string weight above the jar, plus any applicable hole drag. When this value is exceeded the mechanical latch releases and the hydraulic delay will engage. The hydraulic delay is adjustable from the service shop. At the end of the hydraulic delay, the jar will fire in an upwards motion.

#### **RESET UP JAR**

If the jar fires too soon, it may not have been pushed down in the latch position. After the jar has fired, set the drill string down on the jar to close and latch. The jar should close at about 5,000-10,000 decanewtons (calculation must take into account the drill string weight below the jar). Repeat the jarring up and reset up operations as required.

#### **JARRING DOWN**

Each jar is sent from the factory with a preset latch down value.

Apply weight on the jar that will exceed the preset latch down value (available from the service shop). Take into account any dog legs or other factors that may reduce the effect of the weight getting to the jar.

The jar will fire downwards with no hydraulic delay.

#### **RESET DOWN JAR**

Picking up on the jar will pull it back into the latched position.

Repeat the jarring down and reset down operations as required.

**AVAILABLE SIZES AND SPECIFICATIONS ON REVERSE SIDE**

**SPECIFICATIONS**

	<b>DMJ-500</b>		<b>DMJ-650</b>	
<b>TOOL OD</b>	5.00 in	(127 mm)	6.56 in	(167 mm)
<b>TOOL ID</b>	2.250 in	(57 mm)	2.563 in	(65 mm)
<b>LENGTH (LATCHED)</b>	21.3 ft	(6.48 m)	22.24 ft	(6.78 m)
<b>WEIGHT</b>	1,100 lbs	(500 kg)	2,100 lbs	(950 kg)
<b>MAX. PULL WHILE METERING</b>	92,000 lbs	(41,730 kg)	198,000 lbs	(89,810 kg)
<b>MAX. OVERPULL</b>	479,770 lbf	(213,410 daN)	741,045 lbf	(329,635 daN)
<b>YIELD TORQUE</b>	15,325 ft-lbs	(20,780 Nm)	41,705 ft-lbs	(56,545 Nm)
<b>PUMP OPEN AREA</b>	7.068 in <sup>2</sup>	(45.6 cm <sup>2</sup> )	9.62 in <sup>2</sup>	(62.05 cm <sup>2</sup> )
<b>FREE STROKE</b>	8 in (20.3 cm)			
<b>OVERALL STROKE</b>	18 in (45.72 cm)			
<b>MAX. OPERATING TEMP.</b>	Depends on Seal Kit Installed			
	Reg: 275°F (135°C)	High: 400°F (204°C)	Reg: 275°F (135°C)	High: 400°F (204°C)

	<b>DMJ-675</b>		<b>DMJ-800</b>	
<b>TOOL OD</b>	6.81 in	(173 mm)	8.140 in	(207 mm)
<b>TOOL ID</b>	2.563 in	(65 mm)	2.813 in	(71 mm)
<b>LENGTH (LATCHED)</b>	22.24 ft	(6.78 m)	22.40 ft	(6.83 m)
<b>WEIGHT</b>	2,100 lbs	(950 kg)	3,100 lbs	(1,405 kg)
<b>MAX. PULL WHILE METERING</b>	198,000 lbs	(89,810 kg)	251,000 lbs	(113,850 kg)
<b>MAX. OVERPULL</b>	741,045 lbf	(329,635 daN)	1,584,711 lbf	(704,915 daN)
<b>YIELD TORQUE</b>	41,704 ft-lbs	(56,545 Nm)	74,325 ft-lbs	(100,770 Nm)
<b>PUMP OPEN AREA</b>	9.62 in <sup>2</sup>	(62.05 cm <sup>2</sup> )	15.9 in <sup>2</sup>	(102.5 cm <sup>2</sup> )
<b>FREE STROKE</b>	8 in (20.3 cm)			
<b>OVERALL STROKE</b>	18 in (45.72 cm)			
<b>MAX. OPERATING TEMP.</b>	Depends on Seal Kit Installed			
	Reg: 275°F (135°C)	High: 400°F (204°C)	Reg: 275°F (135°C)	High: 400°F (204°C)

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