



## DRILLING JARS

# POWERSTROKE™ DRILLING JAR

Every aspect of this double-acting hydraulic jar was designed to withstand the rigors and long hours of challenging applications. Featuring an extra-long stroke length for exceptional impact and impulse forces during jarring operations, the *PowerStroke™* jar offers infinitely variable trip loads up to the maximum rating of the tool. Only a minimal load is required in both the up and down jarring directions, which is crucial in directional, horizontal, and extended-reach wellbores. This makes the *PowerStroke™* jar an ideal solution for modern drilling operations.

## CRUCIAL IN DIRECTIONAL, HORIZONTAL AND EXTENDED-REACH DRILLING FEATURES

- **Safety** – This safety enhancing and time saving device locks the *PowerStroke* in the open position via a mechanical latch actuated by the absence of hydrostatic pressure. The Safety Lock is located internally to the *PowerStroke*; therefore, eliminating the Mandrel Clamp during rig up/down operation.
- **Handling** – The Rex Sub possesses an engineered location for Elevator placement to eliminate the need for a Lift Sub when handling the *PowerStroke*.
- **Length** – The *PowerStroke's* overall length equals that of conventional drillpipe for ease and safe placement within the Derrick and/or Mouse Hole.
- **Connections** – The *PowerStroke* is easily adapted to any BHA by simply changing out the Flex Sub and Bottom Sub to the desired connection.
- **Manufacturing** – All jars are manufactured to I.S.O. 9001 specifications utilizing materials of outstanding quality.



## POWERSTROKE™ TECHNICAL SPECIFICATIONS

Outside Diameter	Inside Diameter	Assembly Number	Maximum Jar Load (Up/Down)	Tensile Yield Strength	Torsional Yield Strength*	Total Stroke	Pump Open Area	Length (Open Position)	Weight
3 1/8 in. 79 mm	1 1/4 in. 32 mm	503734	50,000 lbf 222,400 N	240,000 lbf 1,067,500 N	5,730 ft-lb 7,775 N-m	22 in 559 mm	2.8 in² 1,810 mm²	30.5 ft 9.3 m	550 lb 250 kg
3 3/8 in. 86 mm	1 1/2 in. 38 mm	504413	50,000 lbf 222,400 N	250,000 lbf 1,112,000 N	6,300 ft-lb 8,500 N-m	22 in 559 mm	3.7 in² 2,390 mm²	30.5 ft 9.3 m	630 lb 290 kg
4 3/8 in. 121 mm	2 1/4 in. 57 mm	1563533	90,000 lbf 400,300 N	482,000 lbf 2,144,000 N	16,200 ft-lb 21,900 N-m	24 in 610 mm	7.1 in² 4,590 mm²	30.0 ft 9.1 m	1,500 lb 690 kg
6 1/4 in. 159 mm	2 3/4 in. 70 mm	155790	170,000 lbf 756,100 N	848,000 lbf 3,772,000 N	42,000 ft-lb 56,900 N-m	28 in 711 mm	12.2 in² 7,880 mm²	32.0 ft 9.8 m	2,400 lb 1,100 kg
6 1/2 in. 165 mm	2 3/4 in. 70 mm	155790	170,000 lbf 756,100 N	848,000 lbf 3,772,000 N	42,000 ft-lb 56,900 N-m	28 in 711 mm	12.2 in² 7,880 mm²	32.0 ft 9.8 m	2,500 lb 1,200 kg
6 3/4 in. 171 mm	2 3/4 in. 70 mm	503348	230,000 lbf 1,023,000 N	1,237,000 lbf 5,502,400 N	63,300 ft-lb 85,800 N-m	28 in 711 mm	12.2 in² 7,880 mm²	32.0 ft 9.8 m	2,800 lb 1,300 kg
7 in. 178 mm	2 3/4 in. 70 mm	503348	230,000 lbf 1,023,000 N	1,237,000 lbf 5,502,400 N	67,800 ft-lb 91,900 N-m	28 in 711 mm	12.2 in² 7,880 mm²	32.0 ft 9.8 m	3,000 lb 1,400 kg
7 3/4 in. 197 mm	2 3/4 in. 78 mm	156426	300,000 lbf 1,334,400 N	1,472,000 lbf 6,547,700 N	72,800 ft-lb 98,700 N-m	30 in 762 mm	16.8 in² 10,840 mm²	33.0 ft 10.1 m	4,500 lb 2,100 kg
8 in. 203 mm	2 3/4 in. 78 mm	156426	300,000 lbf 1,334,400 N	1,472,000 lbf 6,547,700 N	72,800 ft-lb 98,700 N-m	30 in 762 mm	16.8 in² 10,840 mm²	33.0 ft 10.1 m	4,800 lb 2,200 kg
9 1/2 in. 241 mm	3 3/8 in. 78 mm	504398	550,000 lbf 2,446,500 N	2,550,000 lbf 11,342,900 N	200,000 ft-lb 271,100 N-m	28 in 711 mm	21.1 in² 113,620 mm²	33.0 ft 10.1 m	6,000 lb 2,800 kg

\* Torsional Yield Strength rating is based on the yield of the body connections independent of tool joint connections