

6401- 63 Avenue

Box 12518

Lloydminster, AB T9V 3C6

Phone (780) 875-6604 Fax (780) 875-6634

Locking/Unlocking Procedures For Manual Lock Blowout Preventers

To Lock-

- 1. Hydraulically close rams.
- 2. Remove hydraulic pressure to B.O.P. by bleeding off accumulator system completely or closing in accumulator bottle manifold, then bleeding off accumulator pressure. Selector valve can remain in closed position.
- 3. Turn locking shaft clockwise until it stops, avoid over tightening (Ratchet or speed wrench is sufficient).
- 4. Apply 1500 PSI (10200 KPA) closing hydraulic pressure and rotate locking shaft clockwise another 1/4"-1/2" turn, again avoid over tightening.
- 5. Closing pressure can now be removed.

To Unlock-

- * Prior to unlocking, bleed off well bore pressure if possible. *
- 1. Apply 1500 PSI (10200 KPA) hydraulic pressure to close rams.
- 2. Turn locking shaft counter-clockwise 1/4"-1/2" turn (Ratchet or speed wrench is sufficient).
- 3. Bleed off hydraulic pressure to rams as explained previous under locking procedure, with selector valve in the <u>OPEN</u> position.
- 4. Turn locking shaft counter-clockwise until shaft stops. If increased resistance is encountered, stop turning as high unlocking torque may damage locking/ram shafts (Ratchet or speed wrench is sufficient).
- 5. Opening pressure may now be applied.

NOTE: If well bore pressure cannot be bled-off, keep closing pressure applied to rams and continue turning counter-clockwise. If increased resistance is encountered, stop turning as high unlocking torque may damage locking/ram shafts.

Do not apply opening or closing pressure to preventer which has been partially unlocked, or while in the process of being unlocked, as damage to locking/ram shafts may result.

Locking and unlocking manual lock preventers must follow specific procedures in order to avoid galling and seizure of locking/ram shaft.