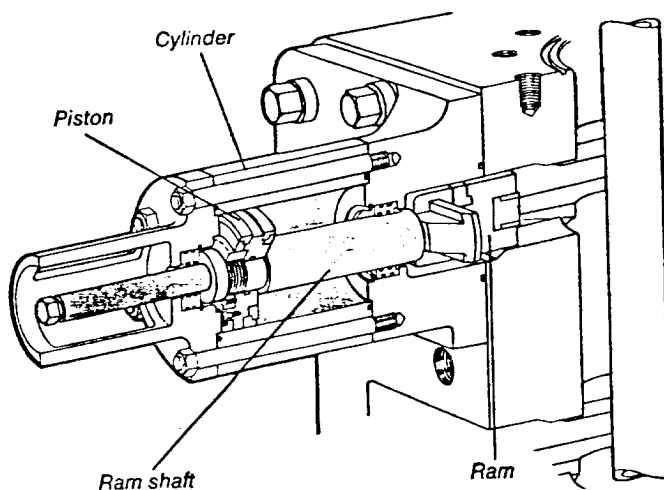


MODEL LWS MANUAL-LOCK SYSTEM

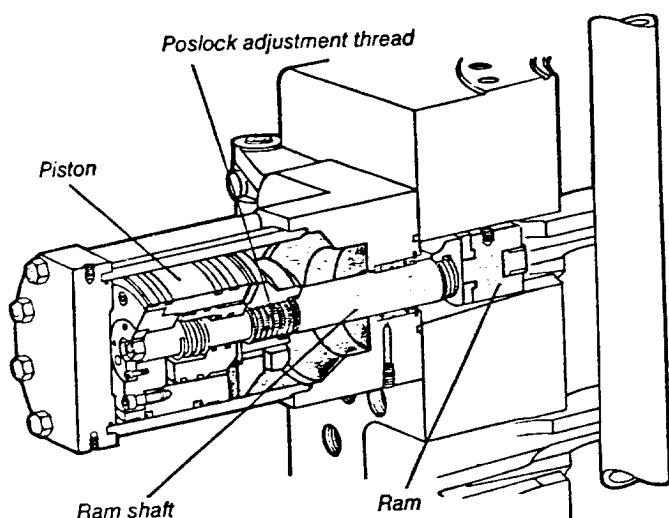
Manual-lock pistons move inward and close the rams when closing hydraulic pressure is applied. If desired, the rams can be manually locked in the closed position by turning each locking shaft to the right until it shoulders against the cylinder head. Should hydraulic pressure fail, the rams can be manually closed and locked. They cannot be manually reopened.

The manual locking shafts are visible from outside and provide a convenient ram position indicator. Threads on the manual locking shaft are enclosed in the hydraulic fluid and are not exposed to corrosion from mud and salt water or to freezing.

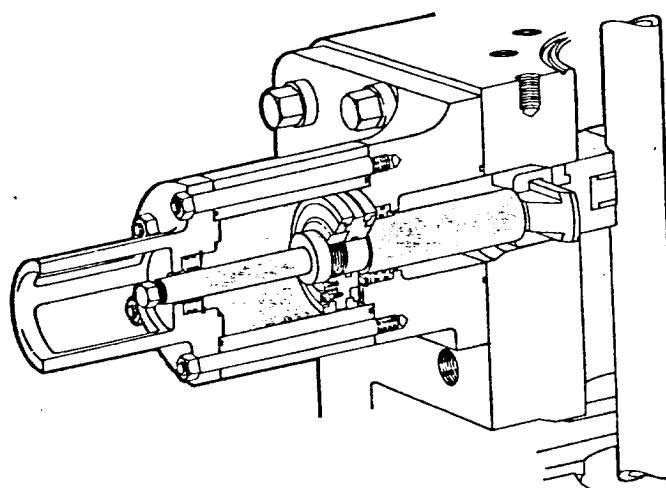
Rams are opened by first turning both locking shafts to their "unlocked" position, then applying opening hydraulic pressure to the pistons, which move outward and pull the rams out of the well bore.



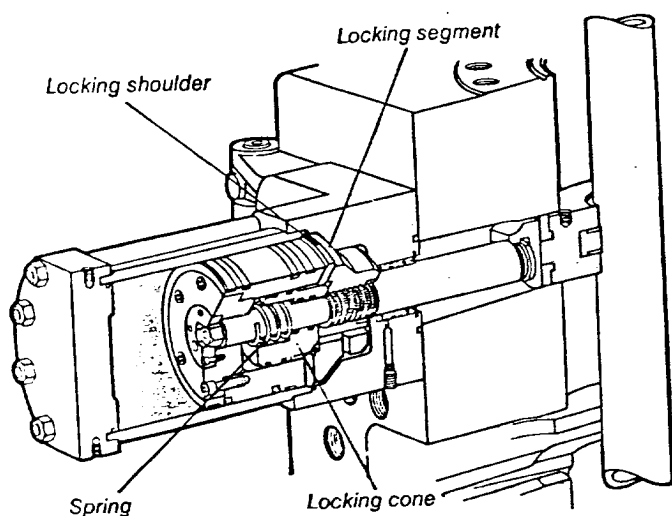
Manual-lock piston in open position



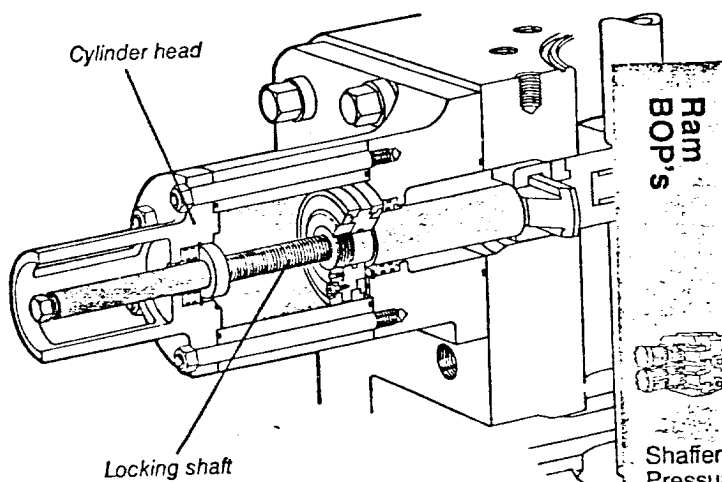
Poslock piston in open position



Manual-lock piston in closed position



Poslock piston in closed position



Manual-lock piston in closed and locked position