

Oil PIC Pumpjack Inertia Capacitor

a low-cost, easy-to-manufacture solution for optimizing pumpjack operations and maximizing profits for oil producers

“One of the most significant operating costs (frequently the largest) associated with sucker-rod pumping is the expense of pulling and repairing the rods, pump, and tubing. Many wells are pulled for repairs so often that they are marginally economic.”

--Paul M. Bommer and David Shrauner, *“Benefits of Slow Speed Pumping.”*

“Even the most sophisticated conventional pump-jack with an AC motor and VFD (variable frequency drive/variable speed drive) does not have the precise rod string control required to help mitigate and resolve many...complex rod pumping issues...”

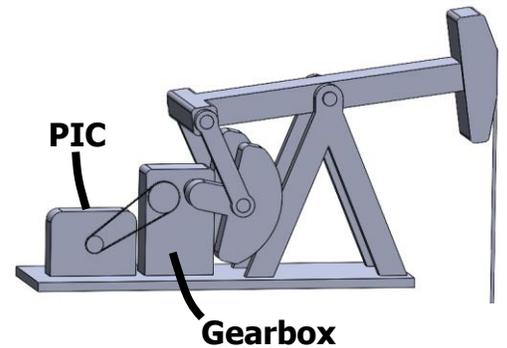
--Andrew Patrakov, Evan West, Igor Shulyatikov, Doug Kinnaird, *“New Era of Oil Well Drilling and Completions.”*

Saves Energy Costs

- Prime mover continuously operates at optimal efficiency

Reduces Maintenance Costs

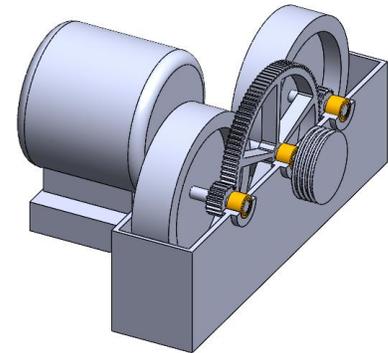
- Extends sucker-rod life
- Eliminates the need to adjust an unbalanced pumpjack



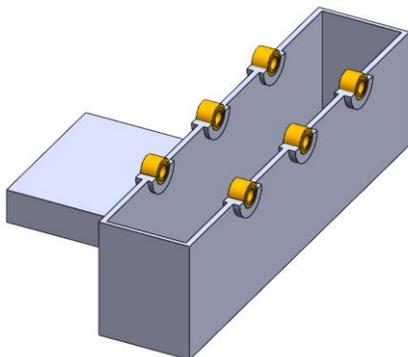
How does PIC work?

The *PIC* design is based on the principle of an energy storage flywheel, which produces smooth continuous action.

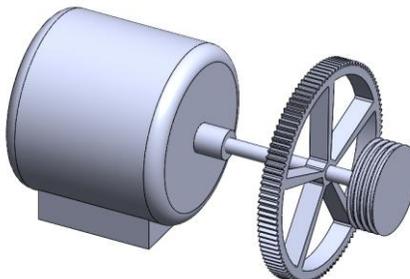
PIC utilizes one or more flywheels installed in a series configuration between the prime mover (motor) and gearbox.



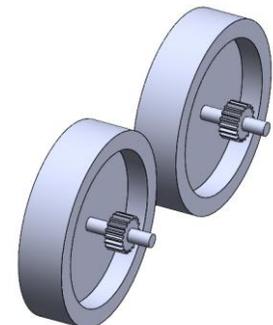
Frame, Base, & Bearings



Primary Shaft Assembly & Smaller Prime Mover



Two Flywheel Assemblies



PIC Technical Summary

- *PIC* is a simple and inexpensive design.
- *PIC* reduces pumpjack operational costs for oil production.
- *PIC* enables the prime mover (motor) to operate continuously at optimal efficiency, which reduces the operational cost of electricity.
- *PIC* extends sucker rod life due to the reduction of dynamic load severity.
- *PIC* eliminates the need and expense to fix an unbalanced pumpjack because *PIC* can smoothly react to extremely high torques from an unbalanced pumpjack.
- *PIC* forces the prime mover (motor) to operate continuously at constant torque.
- *PIC* allows the prime mover (motor) to be reduced in size by more than 50%.
- *PIC* benefits apply to both motors and engines.
- *PIC* absorbs dynamic loads, which enables smooth operation at constant speed.
- *PIC* produces better, quicker, and smoother reaction to torque spikes than a VFD.
- *PIC* incorporates a small flywheel because only a small amount of kinetic energy is needed for smooth operation of the pumpjack.
- *PIC* can be retrofitted to existing oil wells.
- *PIC* US patent number 10,859,137. Additional detailed technical information can be found in the patent filing.

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Seeking parties interested in manufacturing and distributing PIC