



Setting the Stage for Better Performance: FB's Two-Stage Plunger Lift System



Ferguson Beaugard's Two-Stage Plunger Lift System has been designed to be a low-cost, efficient method of increasing and optimizing production in oil and gas wells that have marginal flow characteristics. The system utilizes two plungers, one installed below the two-stage tool and one above, which create a mechanical interface between the produced liquids and gas. This mechanical interface eliminates fallback, which boosts the well's lifting efficiency, while a corresponding decrease in bottom-hole pressure increases product flow.

The Two-Stage Plunger Lift System also uses a Pressure Relieving Standing Valve (PRSV) that incorporates a liquid-load balancing spring. Thanks to this innovative design, the PRSV is energized by the tubing and casing pressures at the surface of the well, reducing the fluid column height and liquid fallback.

Applications

- Low-volume wells that require longer shut-in times to build enough gas volume to lift the liquid load
- Wells where the lift gas is not adequate enough to optimize plunger arrivals
- Slim-hole completions
- Wells that use packers
- Wells that have matured to the point where a conventional plunger-lift system can no longer be effectively used
- Wells with low gas-liquid ratios

Benefits/Advantages

- Reduced shut-in times mean more cycles per day
- Less fluid per cycle increases production rates
- Ability to lift smaller loads
- Ability to lift loads from shallower depths
- Stored energy is used for maximum lift-gas efficiency
- Head gas can be utilized to lift the plunger
- Plunger contact with sides of well tubing wipes the tubing clean and eliminates buildup of paraffin and hydrates
- Casing and back pressure are reduced, increasing product flow
- Production gas does not need to be vented, increasing gas production and amount of saleable product
- Can be installed via wireline