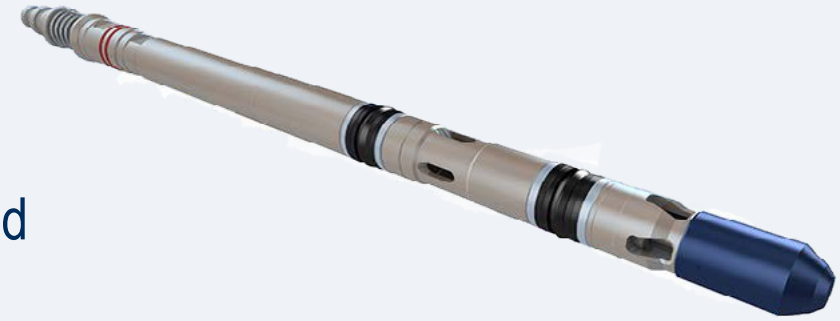
ShearLift-T™

PETROLEUM TECHNOLOGY COMPANY



Tubing pressure activated gas lift valve

ShearLift-T valves facilitate standard completion operations (annulus/ tubing pressure tests) without the need for a wireline intervention.

Multiple ShearLift-T valves can be opened in a single operation by pressuring up the tubing.

Challenge

When completing new gas lift wells the standard practice is often to install dummy valves in all side pocket mandrels. These dummy valves provide a barrier between the annulus and the tubing during the well completion phase. Before the wells can start producing, the dummy valves need to be replaced with gas lift valves. These intervention operations are often time consuming and costly.

Solution

Petroleum Technology Company's ShearLift-T valve has a unique design, which utilizes the barrier technology from the standard SafeLift. The ShearLift-T valve provides a barrier between the tubing and annulus when installed in a side pocket mandrel.

The check valve is held in the closed position by a shear device located in the nose section of the valve. Increasing the tubing to annulus differential pressure, to a predetermined level, shears open all ShearLift-T (IPO & Orifice) valves in the tubing string. This allows communication from annulus to tubing.

Costly change out of dummy valves in new completions can be avoided by using ShearLift-T.

Features

- A shear system that can be utilized in wells with multiple GLV´s (IPO & Orifice valves) in the tubing string
- Act as a dummy valve until shear open
- All ShearLift-T valves open during one operation
- True metal-to-metal back check seal
- Patented shear design
- The check valve design eliminates vibration and chattering
- Barrier qualified
- Premium metallurgy
- CFD simulations and erosion tested
- Suitable for harsh environments (H2S and CO2)
- Square-Edge, Stealth and Venturi orifices available

Benefits

- Field proven design and operation
- Considerable time saving, as no wireline intervention required prior to production start up
- Best in class reliability and longevity ensures enhanced productivity and well integrity

ShearLift-T ™

Tubing pressure activated shear open Orifice and IPO Gas Lift Valve

Specifications	
Size in.	1.5
Orifice Size Range, 1.5" valve in.	1/8 - 1/2
Orifice Type	Square-Edge Stealth/Venturi (Orifice valves only)
Body Material	Alloy 718 (other material on request)
Seal Stack Material	FKM/PTFE/PEEK
Max Operating Pressure for 1.5" psi [Mpa]	10 000 [69]
Max Dome Pressure for 1.5" psi [Mpa]	10 000 [69]
Max Shear Pressure (absolute tubing pressure) psi [Mpa]	Up to 9 000 [62]
Max Operating Temperature for 1,5" °F [°C]	329 [165]
Min Operating Temperature for 1,5" °F [°C]	64.4 [18]
Applicable Standards, SafeLift Series	API 19G2 - V1 TR2385 - 20cc/15min [0cc/15min - V0]

Qualifications

ShearLift valves use SafeLift's true metal-to-metal seal, which has been qualified as a well barrier for operators worldwide. It was designed, built and tested in accordance to API 19G part 2 and leak tested in accordance to ISO 14310-V1/V0. SafeLift valves are designed to be installed to all side-pocket mandrels with 1.0" & 1.5" seal bore, designed according to API 19G part 1.