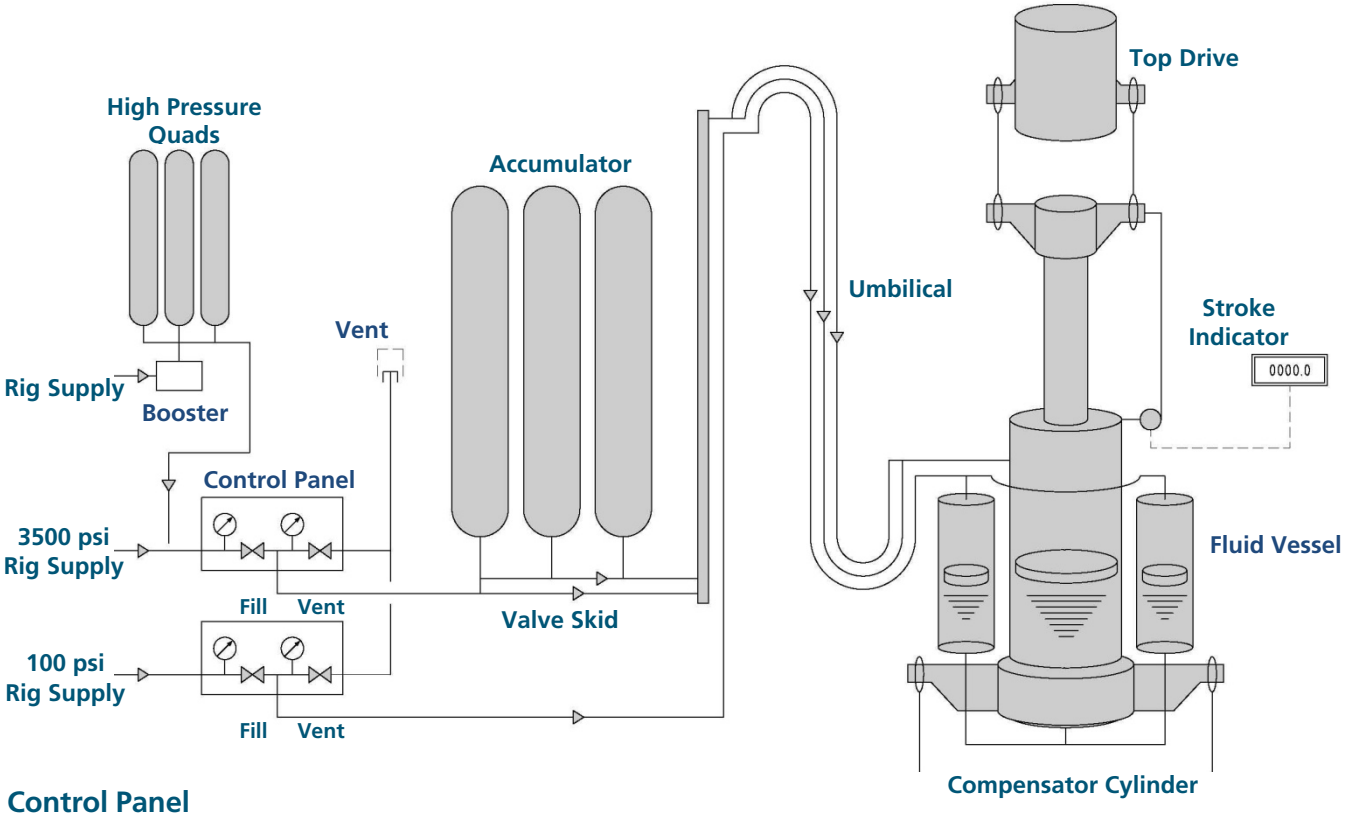
INLINE STRING MOTION COMPENSATOR SYSTEM DESCRIPTION

Customised and Tailored to suit Client's drilling program



Control Panel

The control panel allows the accumulator and fluid vessel pressure to be controlled by the driller in the doghouse. One gauge indicates the available air pressure from the rig supply or HP quads, whilst the other gauge indicates the current accumulator or fluid vessel pressure. The fill valve allows air to flow from rig supply or HP quads to the accumulator or fluid vessel whilst the vent valve blows down the accumulator or fluid vessel.

Accumulator

The accumulator stores the air which is compressed and expanded as the compensator strokes. The working volume can be adjusted by isolating bottles. With similar working volume, the load will change more as the compensator strokes. Use the smallest working volume appropriate for the work being undertaken.

The accumulators are charged to the pressure which balances the force to be carried by the compensator. A reference table in accordance to the client's drilling programme can be supplied.

Fluid Vessel

The fluid vessel maintains compensator fluid in the back of the cylinder for lubrication and to limit the speed of retraction of the cylinder in case of sudden loss of load. It is pressured to between 60 and 100psi. The fluid vessels have sufficient hydraulic capacity to fill the compensator cylinder completely when it is fully extended.

Compensator Cylinder

The compensator cylinder can carry a dynamic load of up to 350 Tonnes when pressurised. When extended and unpressured, the compensator can carry a static load of up to 700 Tonnes. All loading on the compensator must be axial. No side or bending loads are permitted.

Stroke Indicator

This indicates the cylinder extension, consisting of a linear transducer with a 0 to 10 volt output to a digital display within the control panel.

Booster Compressor and High Pressure Quads (Optional feature to achieve 3500psi air supply)

The booster charges the quads to 3500psi from the available rig's supply. The air in the quads is used to charge the accumulator. The booster compressor stalls when 3500psi is reached and restarts automatically when the pressure drops.

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