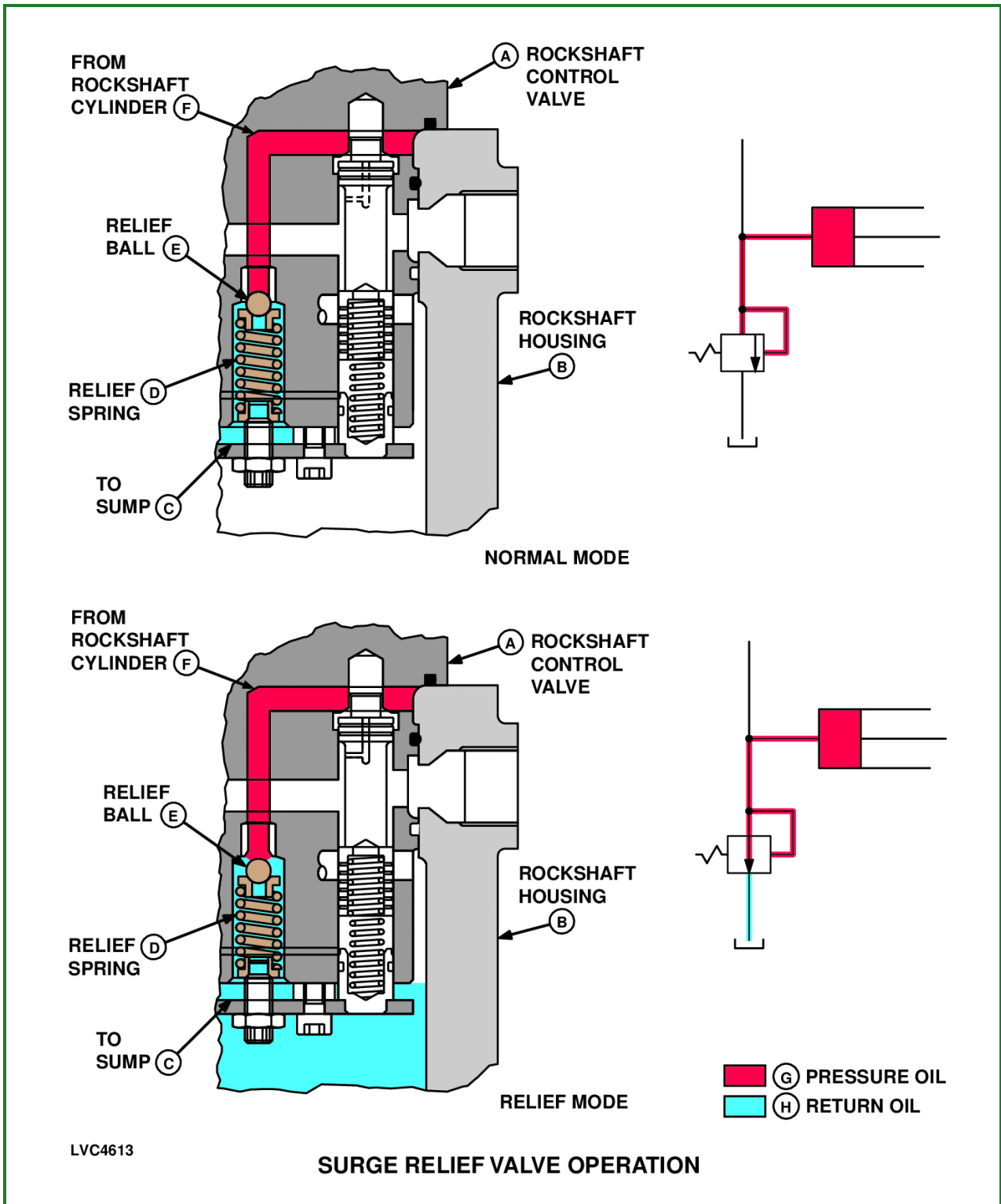


Surge Relief Valve Operation



LVC4613-19: Surge Relief Valve Operation

LEGEND:

- A - Rockshaft Control Valve
- B - Rockshaft Housing
- C - To Sump
- D - Relief Spring
- E - Relief Ball
- F - From Rockshaft Cylinder
- G - Pressure Oil
- H - Return Oil

FUNCTION:

The surge relief valve is integrated into the rockshaft control valve. The surge relief valve protects the cylinder and its related parts from damage due to excessive pressure.

MAJOR COMPONENTS:

- Surge Relief Valve
- Rockshaft Cylinder
- Rockshaft Piston

THEORY OF OPERATION:

As long as pressure inside the rockshaft cylinder is less than 22994 kPa (230 bar) (3335 psi) tension from relief spring (D) holds relief ball (E) closed. If pressure increase exceeds spring pressure, relief ball unseats, allowing oil back to sump. This condition can occur when the rockshaft encounters an excessive implement load.

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