

L90 and K220 Series Valves

Pressure Compensated, Load-Sense Type



Low Pressure Operation:

Challenge

Forestry feller-bunchers and harvesters need to operate the implement and tool functions at lower pressures than the track functions. To maintain cycle time and reduce heat, this reduced pressure SHOULD NOT be achieved with port reliefs. Port relief valves vent high flows to tank and result in lost speed and increased heat – degrading efficiency. Also, equipment needs to be productive; cycle times are critical and the ability to multi-function without interruption is paramount. Depending on the amount of oil available, multi functioning often results in pump over-demand which can decrease productivity as function with the highest pressure can involuntarily shutdown.

Solution

Parker models L90 and K220 are pressure compensated, load-sense type valves that have the capability of selectively limiting the work port pressures via the feed reducers located in the work section. These feed reducers pass a minimal amount of flow to tank (0.25 GPM) when the target pressure is reached. Parker can add hardware to each section that will enable it to have flow-sharing capability. During flow sharing, in a pump over-demand condition, the speed of the selected functions will slow down but will maintain the speed relationship selected by the operator.



Reduced Lifetime
Ownership Costs



Increased
Safety



Increased
Productivity

Success Factors:

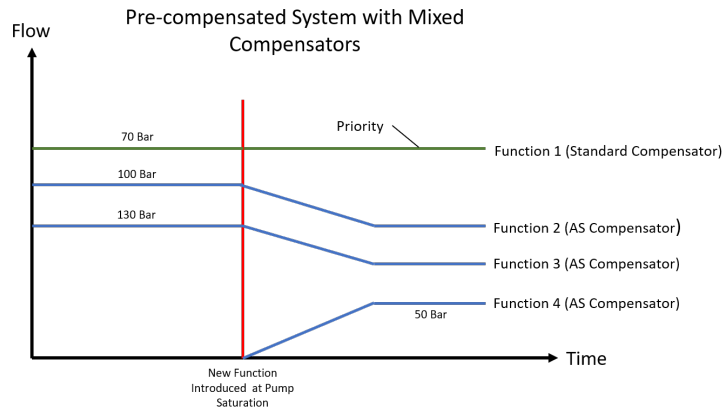
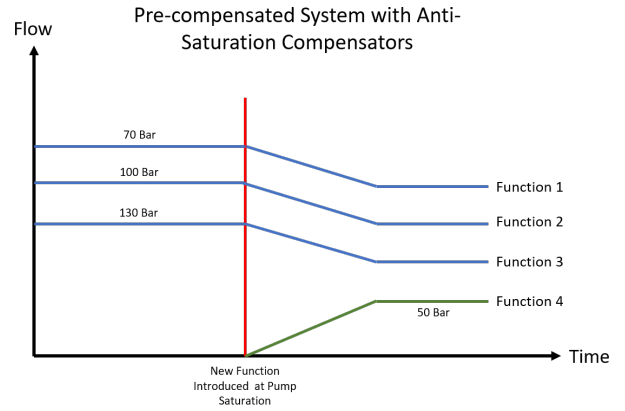
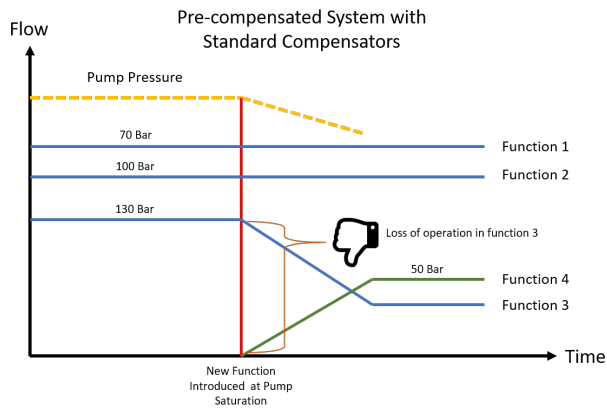
- Ability to integrate flow-sharing technology into a control valve with pressure-limiting (feed reducers) capability
- Function priority can be achieved by not adding the flow-sharing hardware to that work section (Useful for the clamp function and steering circuits)
- Uptime and productivity (critical to forestry)

Customer Values:

- Up to \$1,000/machine without having to use a larger pump
- Work sections can be configured to limit pressures to downstream sections saving cost and time spent
- With saving of feed reducers, coolers can be downsized by up to 20%



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