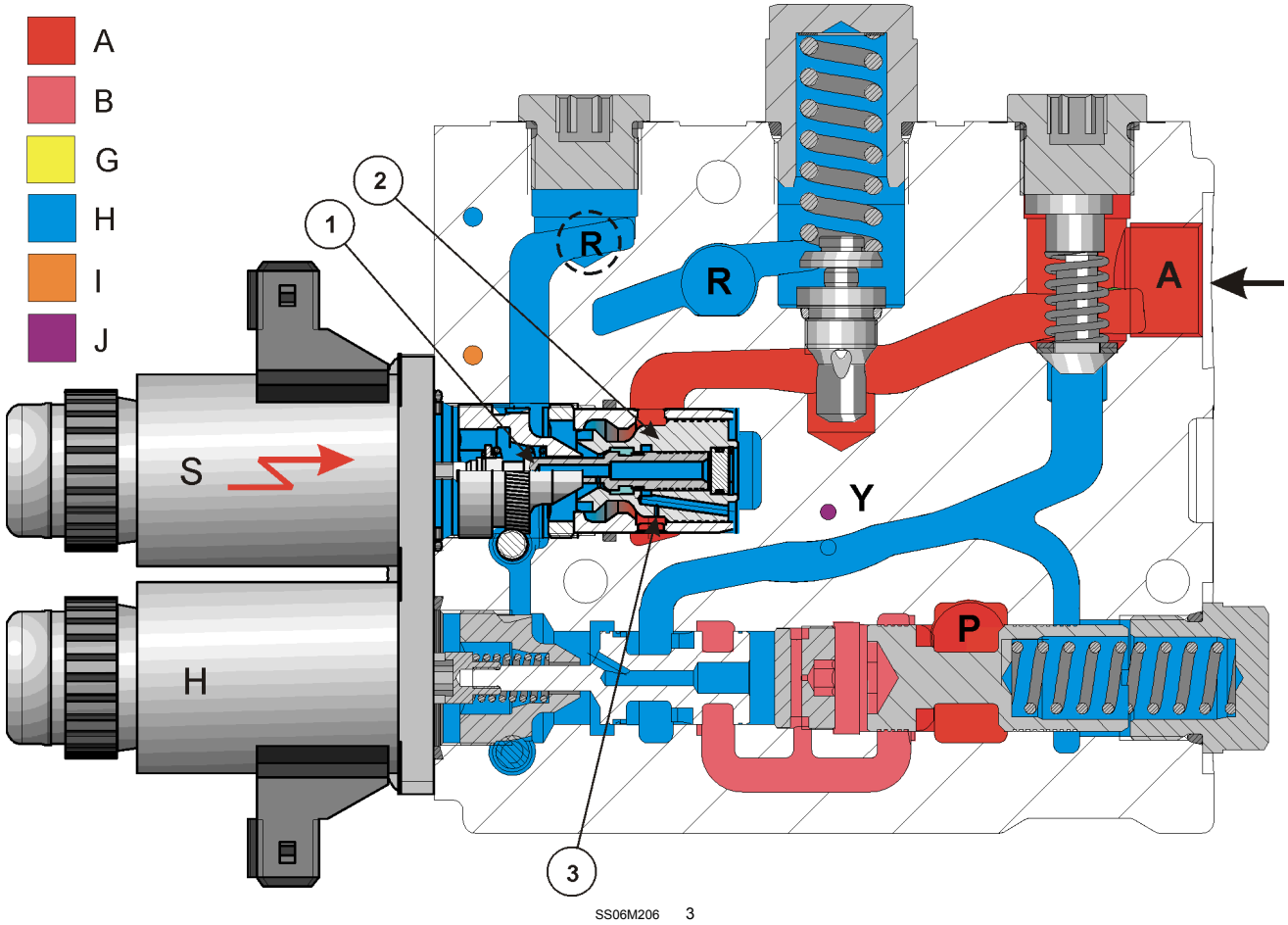
Function – lower



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Color legend

A. High-pressure circuit
B. Pressure drop in high pressure
G. Trapped oil
H. Oil to the tank
I. Low pressure circuit P1
J. Load-sensing line (LS)

You can set the "drop rate" potentiometer (setpoint) so that the CCU supplies the "lower" solenoid valve with a specific current. The actual value of the drop rate is signaled to the CCU controller via the position sensor. The controller carries out a constant comparison of the SETPOINT and ACTUAL values and varies the current at the solenoid valve accordingly. This produces a load-independent drop rate.
When the "lower" solenoid valve is supplied with current, the pilot poppet **(1)** opens. The load pressure on the rear side of the main poppet **(2)** is diverted into the return flow. An insufficient amount of oil is able to flow through the restrictor **(3)**. The closing pressure at the main poppet therefore drops. The load pressure that acts on the front side of the main poppet now opens the main poppet **(2)**.
The travel of the "lower" solenoid valve and of the pilot poppet **(1)** determines the travel of the main poppet **(2)**. When the main poppet **(2)** opens, the pilot poppet **(1)** closes. When the pilot poppet **(1)** closes, the load pressure acts on the rear side of the main poppet.

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