Chassis
4100, 4156, 4166 & 4186
Tractors

Service Manual

GSS-1376-1
W/Revision 2
December, 1976

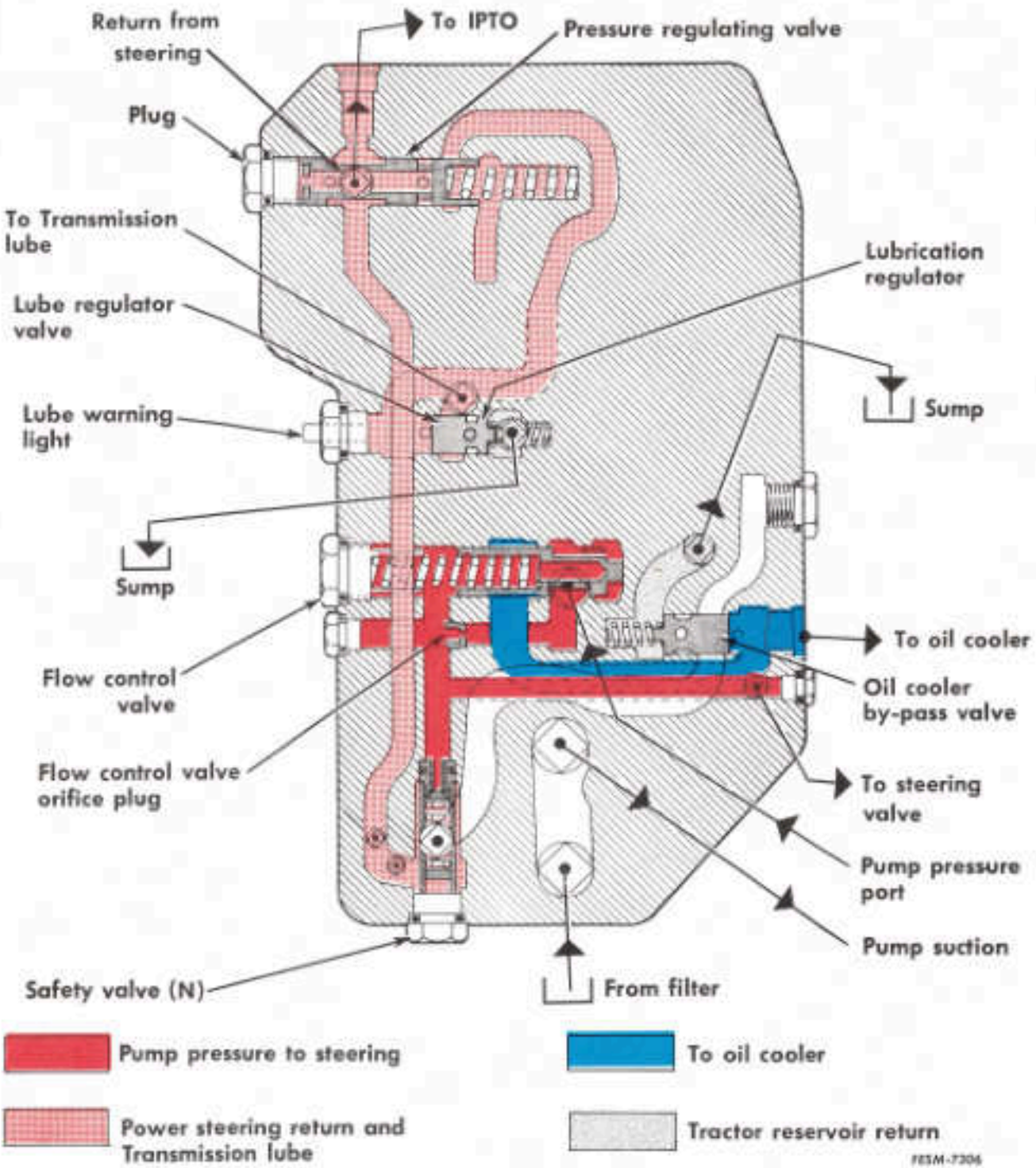
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MULTIPLE CONTROL VALVE (MCV)

Tractors Without IPTO

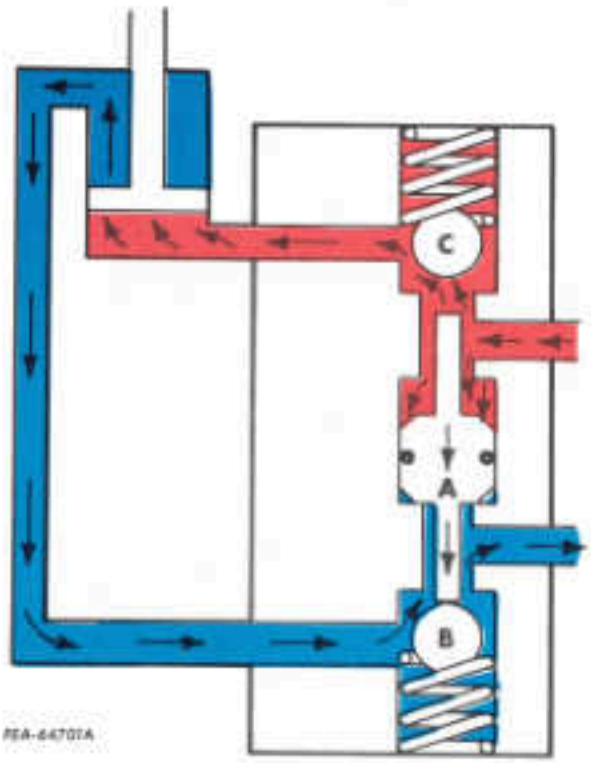


View through multiple control valve (MCV) from clutch housing side.

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DOUBLE ACTING CHECK VALVE

Operating Principles



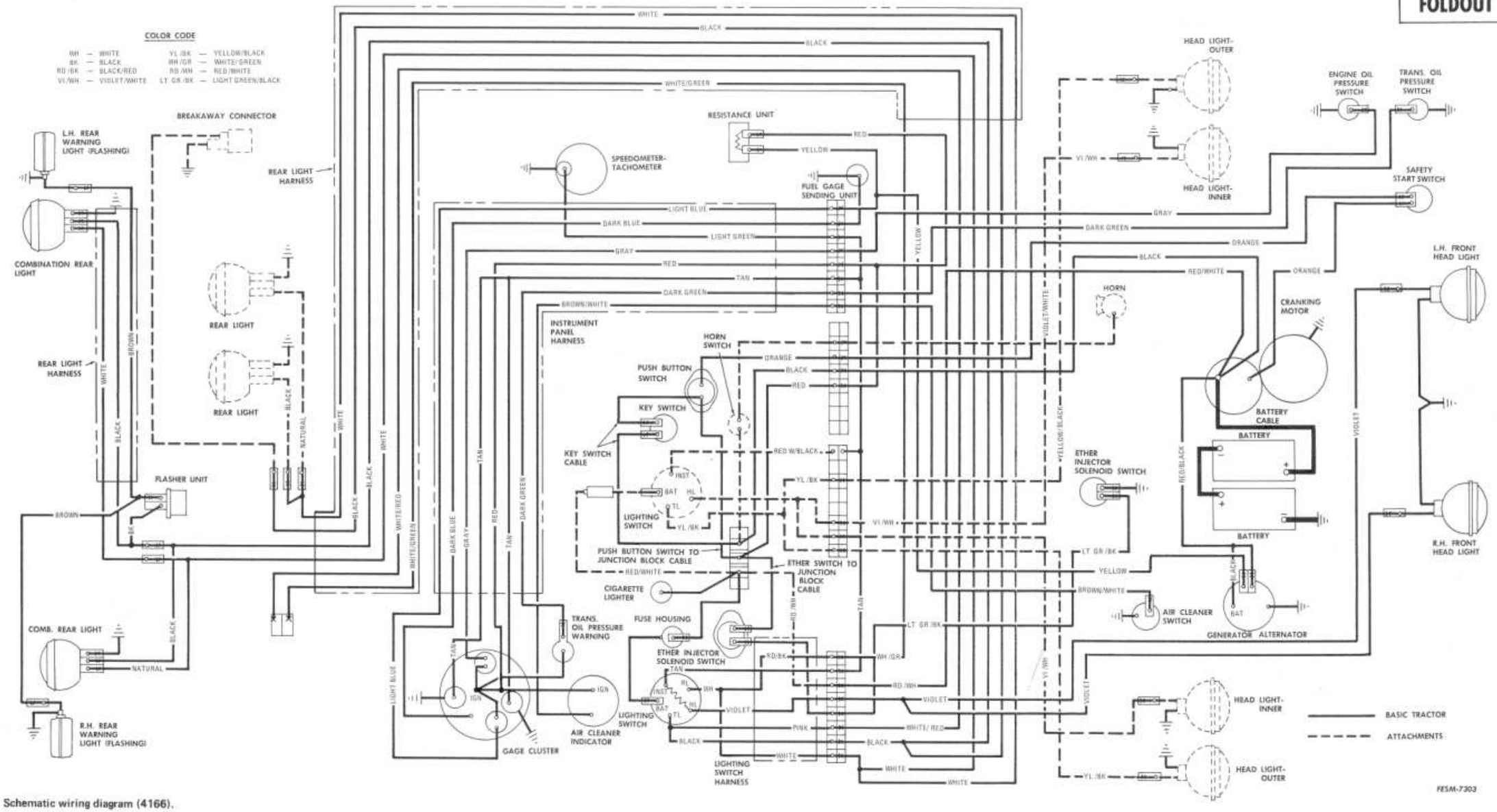
Schematic diagram of double acting check valve.

A double-acting check valve is used to prevent a double acting cylinder from slowly lowering a load due to leakage past the valve spool.

With the control valve in neutral and no flow through the block, both check balls are held on their seats by their springs, thus trapping the fluid between the balls and the respective sides of the cylinder piston. Fluid pressure is not transmitted to the control valve spool from the cylinder.

The diagram indicates the fluid flow when the control valve is moved to extend the piston. Fluid pressure is exerted against the floating piston "A" which, because of its greater area, overcomes the spring and return fluid pressure behind the ball "B" in the return passage. This permits return flow to the control valve as shown in blue. The fluid flowing to the piston forces check ball "C" off its seat to extend the cylinder. The cylinder is retracted by reversing the direction of the fluid. A floating washer serves as a dashpot to reduce chatter of the check valve piston when dropping a heavy load.

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Schematic wiring diagram (4166).

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