

(C2A) Port to the rod end of the tilt cylinder

(C2B) Port to the head end of the tilt cylinder

(C3A) Port to the rod end of the depth cylinders

(C3B) Port to the head end of the depth cylinders

(P1) Inlet port for normal flow

(P2) Inlet port for reverse flow

When the host machine supplies hydraulic oil through lower auxiliary hydraulic hose (9), oil flows into port "P1" of control valve (4) and the oil flows through orifice (11). The reduced oil flow is blocked by sideshift solenoid valve (6) and by depth solenoid valve (8). The oil flows through tilt solenoid valve (7) to port "C2A" of the control valve. The oil flows from port "C2A" into the rod end of tilt cylinder (2) and the oil flow causes the cylinder to retract. As the cylinder retracts, oil flows from the head end of the cylinder to port "C2B" of the control valve. The oil flows from the port through the tilt solenoid valve to port "P2". Then, the oil flows from port "P2" back to the host machine through upper auxiliary hydraulic hose (10) .

When the host machine supplies hydraulic oil through upper auxiliary hydraulic hose (10), oil flows into port "P2" of control valve (4). The oil flow is blocked by sideshift solenoid valve (6) and by depth solenoid valve (8). The oil flows from port "P2" through tilt solenoid valve (7) to port "C2B" of the control valve. The oil flows from port "C2B" into the head end of tilt cylinder (2) and the oil flow causes the cylinder to extend. As the cylinder extends, oil flows from the rod end of the cylinder to port "C2A" of the control valve. The oil flows from the port through the tilt solenoid valve. The oil flows from the solenoid valve through orifice (11) to port "P1". Then, the oil flows from port "P1" back to the host machine through lower auxiliary hydraulic hose (9) .

Depth System

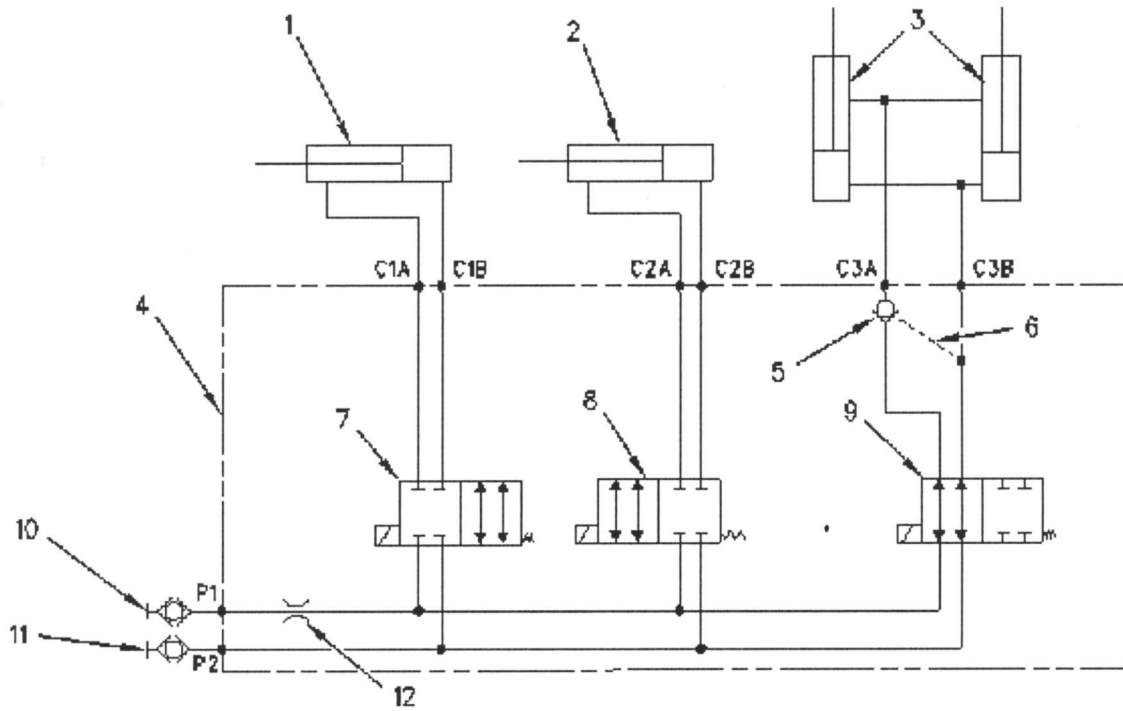


Illustration 5

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- (1) Sideshift cylinder
- (2) Tilt cylinder
- (3) Depth cylinders
- (4) Control valve
- (5) Check valve
- (6) Internal oil passage
- (7) Sideshift solenoid valve in the shifted position
- (8) Tilt solenoid valve
- (9) Depth solenoid valve in the shifted position
- (10) Lower auxiliary hydraulic hose
- (11) Upper auxiliary hydraulic hose
- (12) Orifice
- (C1A) Port to the rod end of the sideshift cylinder

(C1B) Port to the head end of the sideshift cylinder

(C2A) Port to the rod end of the tilt cylinder

(C2B) Port to the head end of the tilt cylinder

(C3A) Port to the rod end of the depth cylinders

(C3B) Port to the head end of the depth cylinders

(P1) Inlet port for normal flow

(P2) Inlet port for reverse flow

When the host machine supplies hydraulic oil through lower auxiliary hydraulic hose (10), oil flows into port "P1" of control valve (4) and the oil flows through orifice (12). The reduced oil flow is blocked by sideshift solenoid valve (7) and by tilt solenoid valve (8). The oil flows through depth solenoid valve (9) to check valve (5). The oil opens the check valve and the oil flows to port "C3A" of the control valve. The oil flows from port "C3A" into the head end of depth cylinders (3) and the oil flow causes the cylinders to retract. As the cylinders retract, oil flows from the head end of the cylinders to port "C3B" of the control valve. The oil flows from the port through the depth solenoid valve to port "P2". Then, the oil flows from port "P2" back to the host machine through upper auxiliary hydraulic hose (11).

When the host machine supplies hydraulic oil through upper auxiliary hydraulic hose (11), oil flows into port "P2" of control valve (4). The oil flow is blocked by sideshift solenoid valve (7) and by tilt solenoid valve (8). The oil flows from port "P2" through depth solenoid valve (9) to port "C3B" of the control valve. At the same time, oil flows through internal oil passage (6) and the oil opens check valve (5). Then, oil flows from port "C3B" into the head end of depth cylinders (3) and the oil flow causes the cylinders to extend. As the cylinders extend, oil flows from the rod end of the cylinders to port "C3A" of the control valve. The oil flows from the port through the open check valve to the depth solenoid valve. The oil flows from the solenoid valve through orifice (12) to port "P1". Then, the oil flows from port "P1" back to the host machine through lower auxiliary hydraulic hose (10).