

5.3.2 Engine fan circuit

The engine fan is hydraulically driven. Oil flows from the charge pump (1) through the fan control valve (2) to the fan motor (3). Oil then flows back to the fan control valve, through a filter (4), and then to the tandem pumps.

The fan control valve controls the fan direction and fan speed. During most of the operating time the fan operates in the forward direction. This moves air through the screen, radiators and coolers, and toward the engine.

The speed of the fan is determined by the cooling required for the current conditions. Higher air temperature or heavier loads will cause the fan to operate faster.

To remove debris from the screen, the fan will reverse and will move air in the opposite direction. The fan will reverse:

- Two minutes after the header is turned on.
- At least every 15 minute that the header is on.
- After the header is turned off.

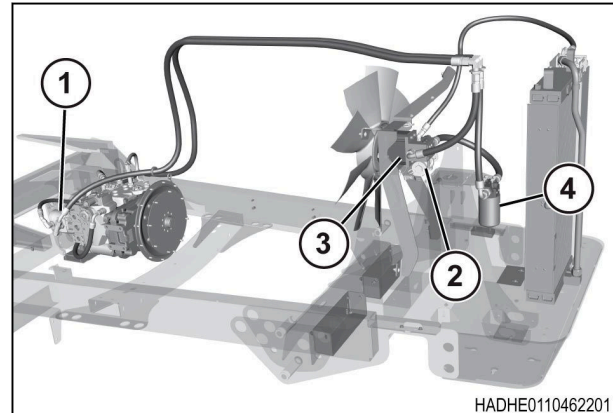


Fig. 11

5.3.3 Parking brake circuit

The parking brakes are a spring applied and pressure release type. The parking brakes are located within the housing of the final drives (1).

The parking brakes are applied by springs in the brake assembly when no hydraulic pressure is present. The parking brakes are released when hydraulic pressure is applied to the brake cylinder.

To supply hydraulic pressure to the parking brake, the engine must be running to operate the ground drive charge pump.

The parking brake switch supplies an input to the ground drive controller. The ground drive controller then send an output to enable the parking brake valve.

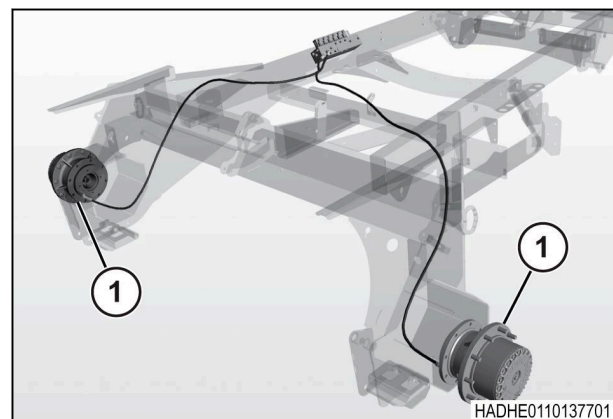


Fig. 12

5.3.4 Header drive circuit

The header drive system includes tandem header drive pump (1) and one or more header drive motors.

The header drive pump is a variable displacement piston pump. The header drive pump is driven by a gearbox which is driven by the engine crankshaft.

The header drive motors are fixed displacement piston motors and are mounted on the header.

The header drive pump is engaged electronically and the desired speed of the header is set on the console. The header speed is controlled electronically. This keeps the header speed constant even when the engine speed is varied by load.

For the rotary disc headers, both pumps are used and the flow from each pump is connected parallel on the header.

For draper headers and auger headers equipped with the hydraulic reel drive option:

- The rear section of the header drive pump supplies oil to the sickle.
- The front section of the header drive pump supplies oil to the reel.

For auger headers without hydraulic reel drive, the front section of the header drive pump is not used.

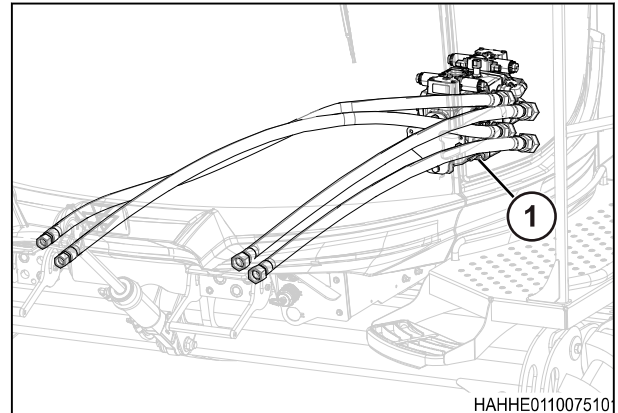


Fig. 13

5.3.5 Header tilt control circuit

A header tilt button is located on the ground speed lever and on the front panel next to the hydraulic connectors.

The header tilt system lets the operator change the tilt of the header hydraulically. The system includes a double acting header tilt cylinder (1) and the auxiliary function valve (2).

The auxiliary function valve determines the direction of flow to the double acting cylinder. When hydraulic pressure is supplied to the base end of the cylinder, fluid is returned to the valve from the rod end of the cylinder. When hydraulic pressure is supplied to the rod end of the cylinder, fluid is returned to the valve from the base end of the cylinder.

Pilot operated check valves hold the cylinder in position.

The header tilt indicator is shown on the terminal.

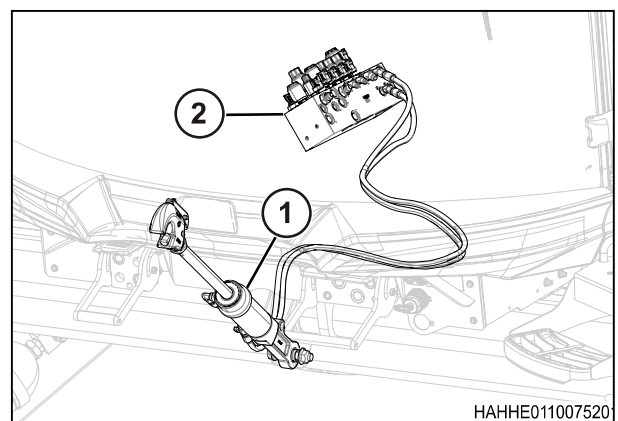


Fig. 14