

ENGINEERING BULLETIN

Concern: Proper Operation of Horizontal Auger Clutch

Balzer would like to inform the dealers and customers, in detail, the proper operation of the horizontal auger clutch.

The circuit consists of a hose, a hydraulic swivel union, and a caliper. The volume of oil in this system is very small. Therefore, there is very little room for expansion of the oil due to heat. The heat may be introduced simply from an increase in ambient temperature, or failure to engage the clutch fully, which causes the clutch to slip while in operation.

We have found that an increase of 50° F can result in a pressure spike of 2500 psi. Therefore, if the pressure inside the system is trapped at 2800 psi. and an increase of 2500 psi. is seen, the system can easily reach 5000 psi. This can lead to failure of the caliper and rotating union.

Grain carts with a swivel auger spout have a hydraulic valve bank that controls the auger spout, grain doors, and clutch. We advise having the clutch trigger, and hydraulic flow to this valve, engaged only while they are unloading. It is necessary to disengage the trigger and place the hydraulics in float prior to shutting down the tractor.

Grain carts with the standard spout do not have this valve. Operators should set the tractor hydraulics controlling the clutch circuit to continuous mode. Placing the lever in detent will ensure full tractor pressure is maintained while unloading. This will also allow any expansion of the oil, which would lead to a pressure spike, back into the tractor. When done unloading, and prior to shutting down the tractor, the valve should be placed in float. The tractor valve should never be placed in neutral.

Balzer recommends having only the clutch circuit plugged into the tractor valve. Customers who are using the other side of the tractor valve to run the steering circuit should not.

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