



FIELD SERVICE BULLETIN

STRADDLE VALVE LIFTER ADJUSTMENT

APPLICABILITY

This bulletin is applicable to the G8 and G16 model batch centrifuges with the straddle valve lifter mechanism for lifting the split or solid basket valve.

DESCRIPTION

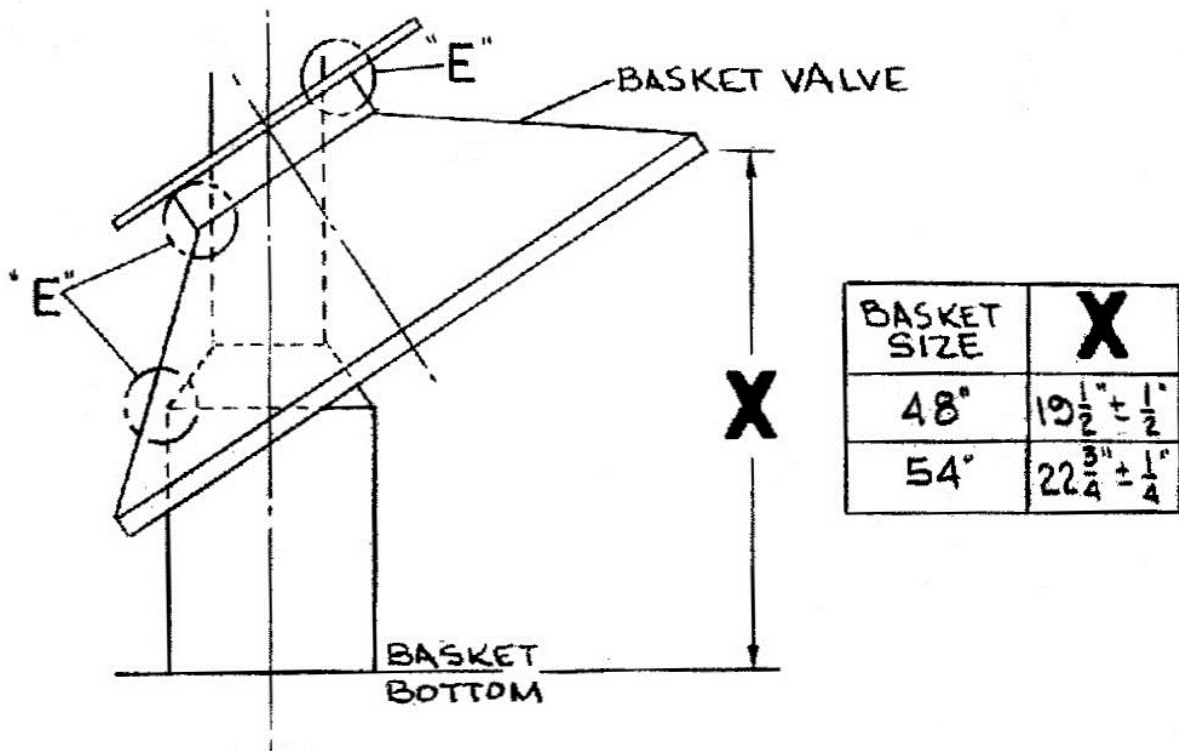
Improper operation or adjustment of the straddle valve lifter can cause premature failure of the basket valve, and difficulty in removal of sugar from the basket during the discharge cycle.

PROCEDURE

1. The original air system design for the straddle valve lifter utilized orifices to limit the airflow so that the valve was opened and closed gently to minimize damage to the basket valve. The orifices may need to be replaced if they are not limiting the flow of air properly.
2. Some factories have replaced the orifices with flow control valves. While this is acceptable, operator action is required to adjust the flow control valves as necessary so that the basket valve is opened and closed gently to minimize damage to the basket valve.
3. The centrifuge control system will lift the valve as the basket is stopping to start the discharge cycle. This is controlled by timers and is not solely dependent on actual basket speed. Lifting the basket valve while the basket is rotating at a high rate of speed can cause premature wear to the basket valve. To prevent the basket valve from being lifted when it is rotating at a high rate of speed, the air pressure to the mechanical brakes needs to be adjusted to stop the basket in 8-10 seconds from the brakes being applied. Stopping the basket quicker than this will cause excessive torque to the coupling and head spindle. Stopping the basket slower than this will cause excessive wear to the basket valve.
4. The widest opening of the basket valve must be adjusted to allow sugar to efficiently leave the basket during the discharge cycle. This can also prolong basket valve life. See



the picture below:



- For a 48" basket, the valve opening "X" must be $19\frac{1}{2} \pm \frac{1}{2}$ ". For a 54" basket, the valve opening "X" must be $22\frac{3}{4} \pm \frac{1}{4}$ ". This is adjusted by rotating the clevis on the valve lifter air cylinder rod. One turn of the clevis equals approximately $\frac{3}{8}$ " travel of dimension "X".
- While the valve is lifted, there should be clearance between the valve and the spindle. The three locations marked as "E" in the above drawing illustrate the common places where the basket valve and spindle may contact. The two fork adjusting screws need to be adjusted to provide clearance at the three points marked "E" above. A bent or worn fork may also cause the basket valve to contact the spindle. If the basket valve is allowed to contact the spindle during discharge, the life of the basket valve and the spindle will be greatly reduced.
- Questions on the proper operation and adjustment of the straddle valve lifter assembly can be directed to the Western States Field Service Department at 513-863-4758, or by email to service@westernstates.com.