JB Tech Talk No. 6 : Check, Check, Double Check

Answer to question from JB Tech Talk No. 5 – *if the secondary flow increases, T2 will drop and either the primary flow or temperature will have to increase proportionately to meet setpoint at T2.*

From Wikipedia – '*A* ***checklist*** *is a type of job aid used to reduce* ***failure*** *by compensating for potential limits of human memory and attention.*'

To try and save some time when called about a problem, I developed a check list to quiz the customer before hopping in the car. The original copy is long lost, but here's a re-creation that I believe is close to it:

- Get a description of the problem. (Not just, 'it doesn't work.')
- Power on? Followed up with 'Did you check?' – *applicable to the whole list*
- Gas on?
- Rotation correct?
- All valves in correct position?
- Strainers and filters clean? Really clean? Did you take it apart?
- Flues clear?
- Flow direction correct on check valves, flow switches, etc.?
- Fuses okay?
- Is there a control demand?
- Air vented from hydronic systems?
- Any fire dampers closed?
- Other dampers (outside air, return air, exhaust) in correct position?
- Back-draft dampers swinging freely?
- Cold static fill pressure properly set for the height of the system?
- Coils/heat exchangers/boilers piped correctly?

I should also mention that a lot of equipment has similar check lists in the installation instructions. Bazinga!

The responses I got to some of the questions were a bit spicy; I'll leave that to your imagination. But there were some guys who had to pull in their horns when they discovered the problem. I'm no different; I've struggled with issues to ultimately find it was something so obvious that it's embarrassing. My own '*limits of human memory and attention*' are not just potential; they're real and not getting any better with time.

Going through this process saved me some long drives and quickly solved the problem for the customer. I hope it might be helpful to you as well. I also believe that after being grilled once or twice it made people start checking the basics *before* they called. Win-win.

Comments? Please email jerryboulanger@gmail.com **December 2020**