

**COACH MODEL :** 2017 - 2021 Van Hool Coaches with Cummins Engines ISX12 & L9

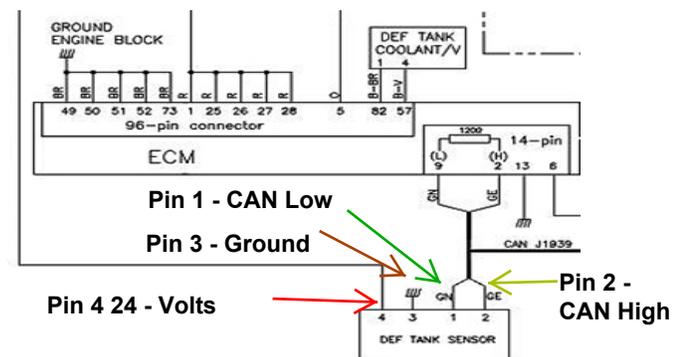
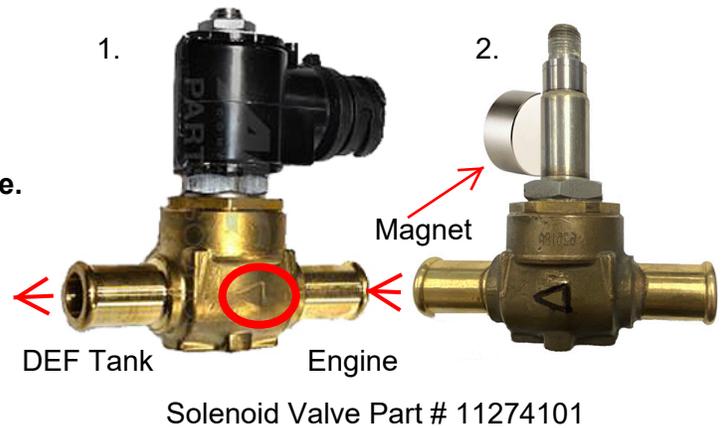
**DATE :** 01 Sep 2020 (Revised 22 July 2021)

**SUBJECT :** Shaw Gen 4, 5 & 6 DEF Header troubleshooting

During diagnostics of a DEF concern, you may have some of the following codes, 3868 DEF Quality Fault, 4677 DEF Level, and 4572 DEF Temperature Fault.

These codes DO NOT necessarily mean the sensor has failed. Before replacing the sensor, the following steps should be performed. If you find no resolution after performing the following steps, along with the Cummins troubleshooting, then contact ABC CustomerCare at 1-877-427-7278 option 3

1. - Check DEF Coolant Control Valve.
  - Ensure the valve is not installed backwards. The arrow on the valve should be pointed in the direction towards the DEF tank.
  - Test the valve to make sure its not stuck, run the Coach and bring up to operating temperature.
  - Check temperature on coolant lines at the Coolant Control Valve and DEF tank for temperature rising.
2. - Take the coil off of Coolant Control Valve and take a magnet and place on shaft of the Coolant Control Valve and check to see if the temperature starts to raise.
3. - Test Pin 4 to the DEF sending unit for 24volts
  - Test Pin 3 for a good ground.
  - Test and inspect the CAN line
  - Ohms across Pins 1 & 2 should be 60Ω.



Shelf life of DEF depends on storage and temperature. Coaches that have been stored for extended periods of time with temperatures 90 degrees or higher may have degraded or have contaminated DEF. DEF has a concentration of 32.5% of Urea. Cummins monitors this level. Degraded Urea happens when concentration levels change, resulting in failure codes. You may need to drain your DEF and replenish with new Fresh DEF.

4. Inspect DEF quality. One possible tester is the AdBlue Tester DEF-906.(Any DEF tester can be Used) If Urea concentration is not correct. You must drain and replace with new DEF.



Number Of Floating Discs	Urea Level	Reference	Stage
0	<29%	Change Fluid	⚠
1	30%	Change Fluid	⚠
2	32.5%	Ideal	✅
3	35%	Change Fluid	⚠