

COLD WEATHER ENGINE BREATHER

Engine Manufacture: **YANMAR**
Engine Model: **4TNV84T-ZDSA2D**

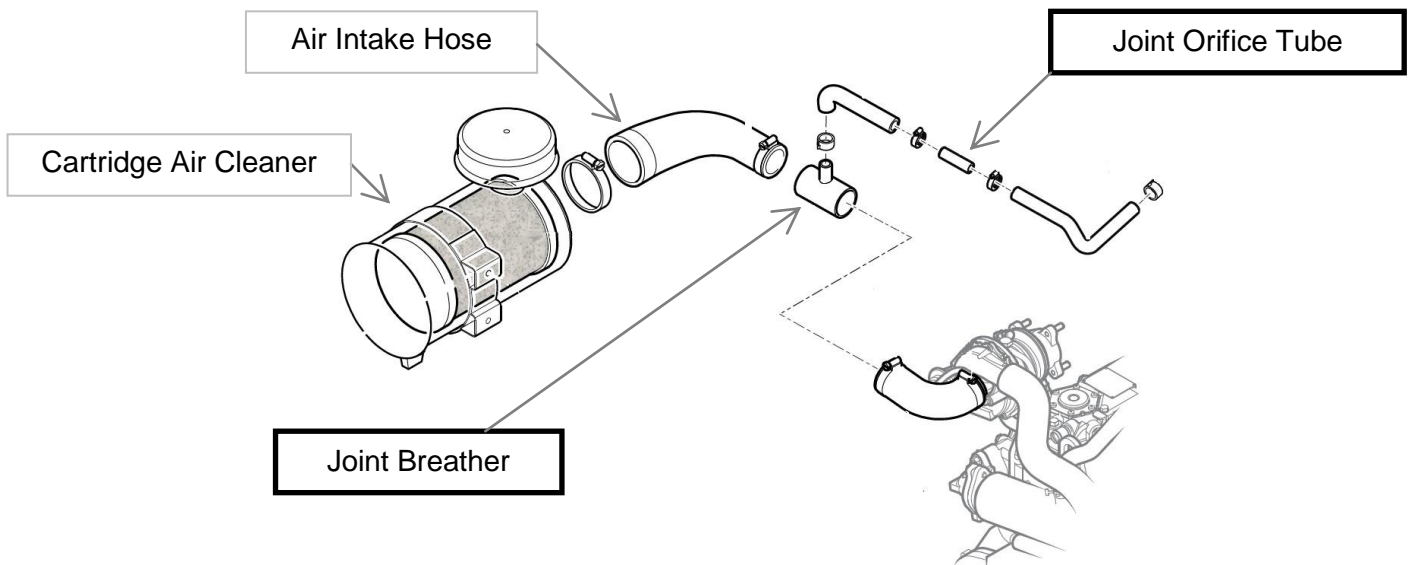
It has been noted while operating the trowel in extreme weather conditions (colder climates), the engine may smoke due to un-burnt fuel caused by a frozen orifice tube.

During extreme cold temperatures along with humidity or condensation in the breather system, the 3.5mm orifice may freeze. With the orifice frozen and the engine started (running) at idle, there is not enough heat produced to thaw out the frozen breather components. This impairs crankcase ventilation which can lead to un-burnt fuel mixing with fumes and oil becoming pushed out of the exhaust system.

The recommended solution in colder climates is to install the optional engine breather joint and orifice tube.

BREATHER SYSTEM PARTS

- Joint Orifice Tube - MQ Part # 12994503040
- Joint Breather - MQ Part # 12994503050



Additional steps may be added for further protection against freezing components in cold weather conditions.

- Insulation wrap: Insulating breather hoses and on other components from cold air blowing over the engine.
- Engine oil: Change the viscosity of the engine oil to help flow during extreme weather conditions.
- Fuel filter: Using a contaminated fuel filter during extreme cold climates can cause wax crystals to collect, cutting off the fuel
- Check list: Add cold weather prevention to basic maintenance list.

NOTE: Wet-stacking can still occur due to excessive low engine speed (engine idling with no loads). For more information on engine wet-stacking see document, "TI Diesel Engine Wet Stacking Prevention".

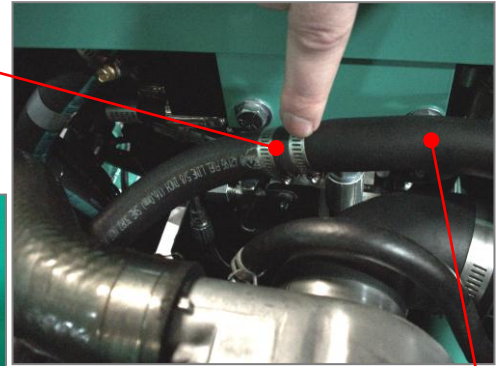
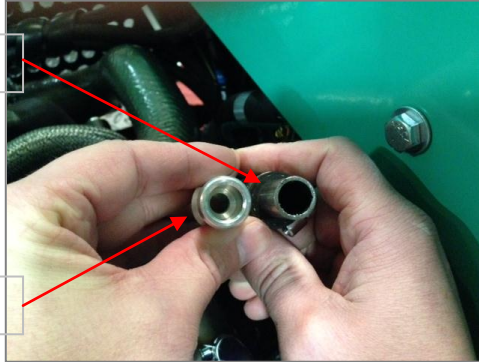
REPLACEMENT PHOTOS

JOINT ORIFICE TUBE located inside breather hose

- Loosen clamps, remove and replace joint orifice tube in between breather hose.

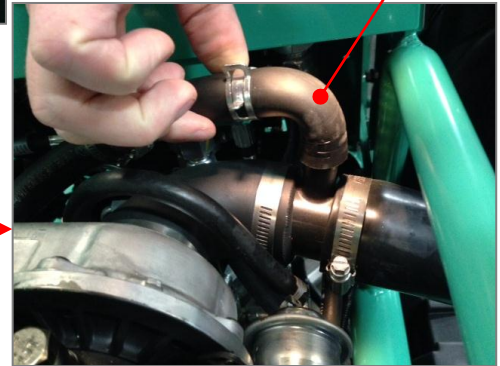
OLD JOINT ORIFICE TUBE

NEW JOINT ORIFICE TUBE



BREATHER HOSE

- Move clamp and lift off breather hose from joint breather.



- Loosen clamps, remove and replace joint breather.

OLD JOINT BREATHER

NEW JOINT BREATHER

