FOUR SEASONS®
DIVISION OF STANDARD MOTOR PRODUCTS, INC

Tech Tip

Compressor Sludge (GOO)

An FX-15, or any compressor can fail for several reasons, including excessive high pressure, loose or damaged mountings that allow the compressor to shake, lack of lubricant, and/or contamination which can be caused by not changing the filter dryer or accumulator. In all cases flushing is extremely important.

When a compressor fails, the system may be subject to heavy contamination, resulting in rapid, multiple failures. Normal wear on a compressor like the FX-15 causes a deterioration of the swash plate and related compressor components. When these fine particles mix with refrigerant and oil they create sludge like material. The chances of repeated failures are great if the system is not properly diagnosed and repaired. The way to identify this problem is to inspect the orifice tube. There will be a noticeable deposit of dark residue on the orifice that may be sticky to the touch. This is sometimes known in the aftermarket as "Ford's Black Death".

The repair of a system, which has this problem, is very expensive and sometimes very hard to repair properly. In training with Ford aftermarket sales personnel, they suggested several steps to repair the system properly.

1) Flush the condenser and the evaporator using a proper flushing procedure, using an approved solvent.
2) Replace any a/c hose, which has a muffler.
3) Replace the accumulator and all orifice tubes.
4) Install an inline filter between the condenser outlet and the orifice tube.
5) Replace the compressor.
6) Run a performance test. In some cases performance will not be affected for several days. If the performance problems re-occur, or the compressor fails again, re-inspect the orifice tube. If "Black Death" has returned, re-do the clean-up procedure, and change the condenser.

Note: On some Aerostar vans, with factory installed dual evaporator a/c systems, the rear A/C switch needs to be cleaned, and the rear in-line filter needs to be changed.