

Common Reasons for Compressor Failure

Don't just change the part, but find the reason for the failure!

Compressor failure is the result of failure of a component in the A/C System. Failure of an A/C component could result from a low refrigerant charge, electronic fan or fan clutch problems, a condenser (which is internally or externally restricted), voltage ground issues, low oil in the system, or etc. Listed below are common reasons for compressor failure (both original or replacement):

- **System Low Refrigerant:** Leaks or a system that is undercharged will limit the amount of oil that is returned to a compressor. Oil is not only a vital lubricant but it also helps keep the compressor cool.
- **Old oil and contamination that was not completely flushed out of the system during service:** Old oil or contaminants will destroy a new compressor quickly.
- **Condenser not operating at maximum efficiency:** Low operating efficiency may be caused by a blocked condenser (parallel flow with contaminants), clogging, insufficient air flow through the condenser, or by a poor air dam or fan. These issues will increase head pressure.
- **Improper oil levels or type:** If the correct oil and amount is not used in the system, it will cause the compressor to fail. Use only the correct amount of oil (the system does not need additional oil).
- **Too much dye:** Using too much dye can have a clogging effect (1/4oz when the system is clean is sufficient).



Burnt clutch caused by high pressure or voltage issue



Burnt clutch caused by high pressure or voltage issue



External rust/oxidation usually caused by excessive environmental exposure



Contamination in suction line shows system contains debris.



Pop off valve cover missing usually caused by high pressure



Case damage caused by high pressure from not changing condenser