

ENGINE TECH TIPS

Subject: ENGINE OVERHEATING (Climbing engine temperature)

1. RELEVANT MODELS:

All models

2. COMPLAINT:

Engine coolant temperature increasing to abnormally high readings usually noticed at higher speeds, under load, or on long grades.

3. CAUSE:

Not enough airflow across the radiator core to dissipate the heat generated under those conditions.

Fan clutch drives have been incorrectly diagnosed as the cause.

4. CORRECTION:

Inspect each component for any debris that might be restricting the airflow.

- 1) Radiator core
- 2) Intercooler core
- 3) A/C condenser core

Debris collected on any of these cores will cause the engine coolant temperature to increase, eventually causing an overheating situation.

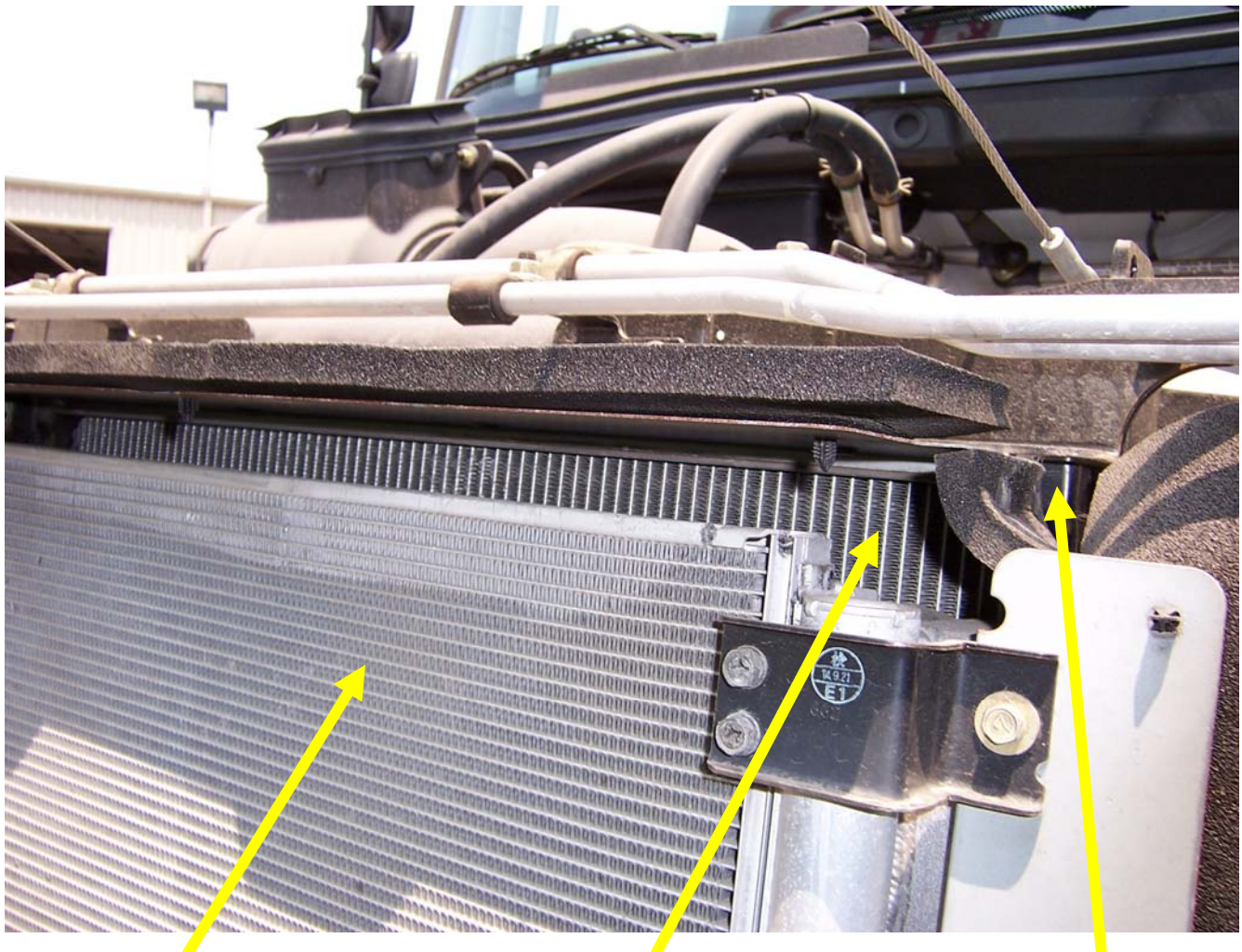
There have been many cases where debris has collected between the cores.

Since all three cores are mounted in front of each other it is extremely important to look between the A/C condenser and the intercooler core. Also between the intercooler core and the radiator core.

It may be necessary to remove and separate each core so thorough inspection and cleaning can be performed.

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Do not be fooled by the cleanliness of the outside cores
The first core is the A/C condenser
The second core is the intercooler
The third is the radiator core



A/C CONDENSOR

INTERCOOLER

RADIATOR

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Look up and between all the cores to verify that there is no debris causing a restriction of airflow.

Any restriction will affect the efficiency of the cooling system



RADIATOR CORE

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It may be necessary to separate the cores to effectively clean them



RADIATOR CORE

If after all the cores are inspected and cleaned and there is still a concern that the clutch fan is not working properly see Tech Tip "Fan Clutch Diagnostics"