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NRF WEEKLY TECHNICAL POST

NRF EGR COOLERS ON EURO 6 TRUCKS >

With the introduction of the Euro 6 regulation's in 2013 a reduction in Nitrogen Oxides (NOx) to 0.46g/kWh. This is a drop of 90% from Euro 5, making trucks cleaner than passenger cars on NOx. This has been achieved through using Exhaust Gas Recirculation (EGR), Selective Catalytic Reduction (SCR) with AdBlue and Diesel Particulate Filter (DPF).

EGR Cooling >

The EGR is largely miss understood as to its purpose and function. With the EGR works as part of the system controlling emissions, but also has other key functions:

- Bypass in the cooler to increase engine temperature when the engine is cold
- Decrease exhaust gases temperature by up to 300c
- Helps to reduce 90% of NOx over Euro 5
- Reduced fuel consumption

The EGR is controlled by the engine control unit (ECU). With the engine running, it's possible to read the

diagnostic device and thus determine any errors. The comparison values of the EGR control and the air mass sensor provide information about the correct function: if the EGR valve is activated, a smaller air mass reading will be measured.

Visual Inspection >

Check vacuum lines and/or electrical wiring and connectors. Check for cracks and leakage.

Valve drive diagnosis >

By feeling and/or hearing it can determine whether the electric vacuum valve or the servomotor is working.

Blocked cooler >

Higher fuel consumption, loss in power and smoke could also be a seen, resulting in a broken piston rings EGR would trigger a "DTC" codes.

Error codes >

On ECU controlled systems you can find DTC codes. NRF currently offers 14 EGR coolers and heat exchangers for popular truck and bus brands/ models. The range is constantly expanded with new parts.



EGR COOLERS	NRF
DAF XF EURO6 2012-	48382
FREIGHTLINER SERIES 60 02-06	48108
FREIGHTLINER SERIES 60 08-10	48109
MAN Lion S City bus	48305
MAN TGA/TGL/TGM/M2000 6.9	48101
MAN TGA/TGL/TGM/M2000 6.9	48102
MAN TGA/TGS D26	48105
MAN TGL/TGM	48103
MAN TGS/TGX	48104
MAN TGX 12.4	48106
SCANIA P,R,T series EURO4	48319
SCANIA P,R,T series EURO5	48318

EGR MODULES	NRF
CUMMINS ISX 07-09	48300
CUMMINS ISX 2010-2013	48302
FREIGHTLINER DD15 10-13	48301
VOLVO D11 / MACK Mp7	48304
VOLVO D13 / MACK Mp8	48303