

Engine Code - PG

Evaporative system leakage

- [troubleshooting](#)

Exhaust system

- [component layout](#)

Heated crankcase breather

- [checking](#)

Engine Code AAA

EGR system

- [component layout](#)
- [valve checking](#)

Exhaust system component

- [removal and installation](#)

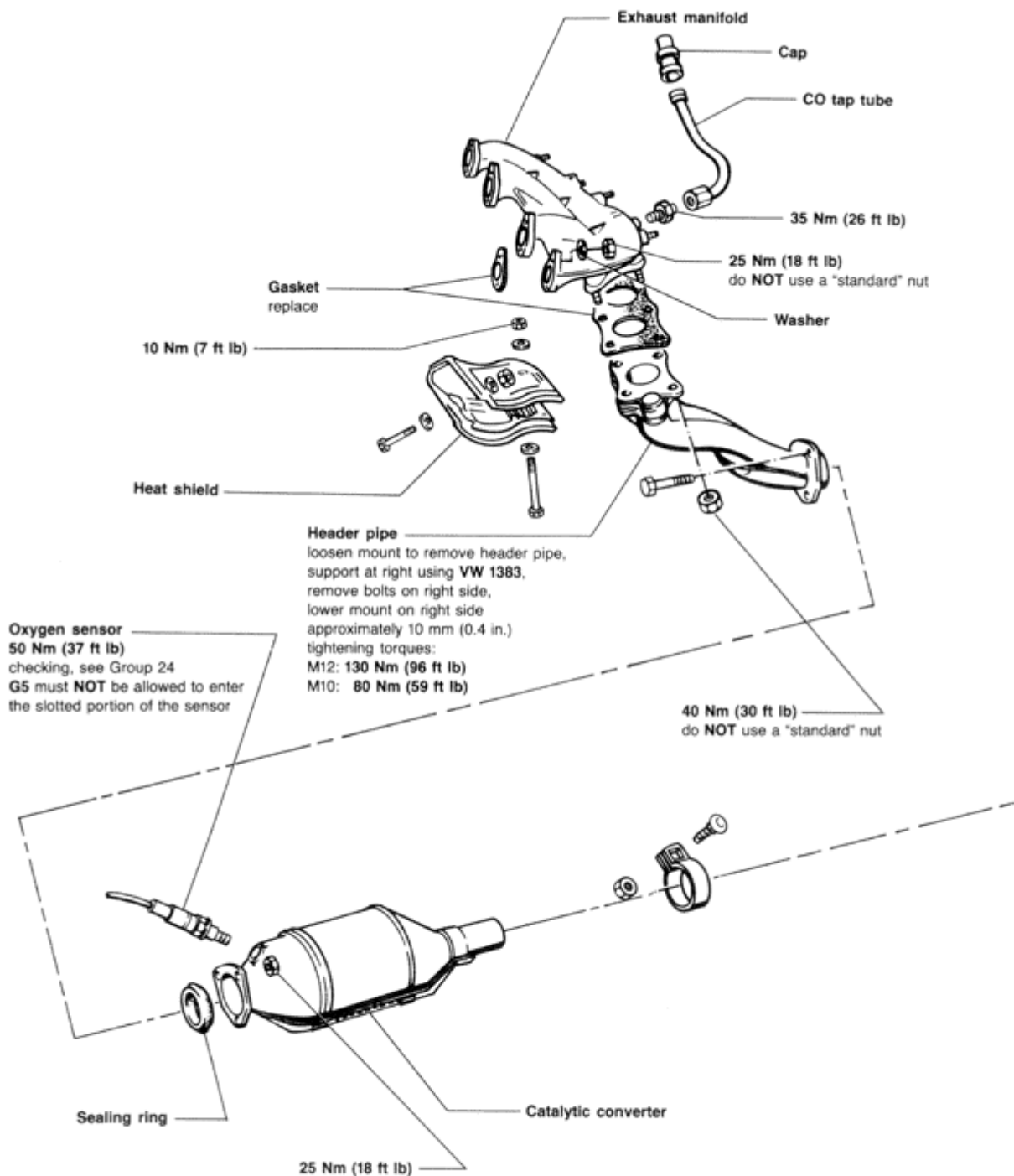
Volkswagen Corrado 1990 - 1994

Fuel Systems Supercharger Exhaust Engine Electrical

Exhaust System - Emission Controls (Page 26-2)

Notes

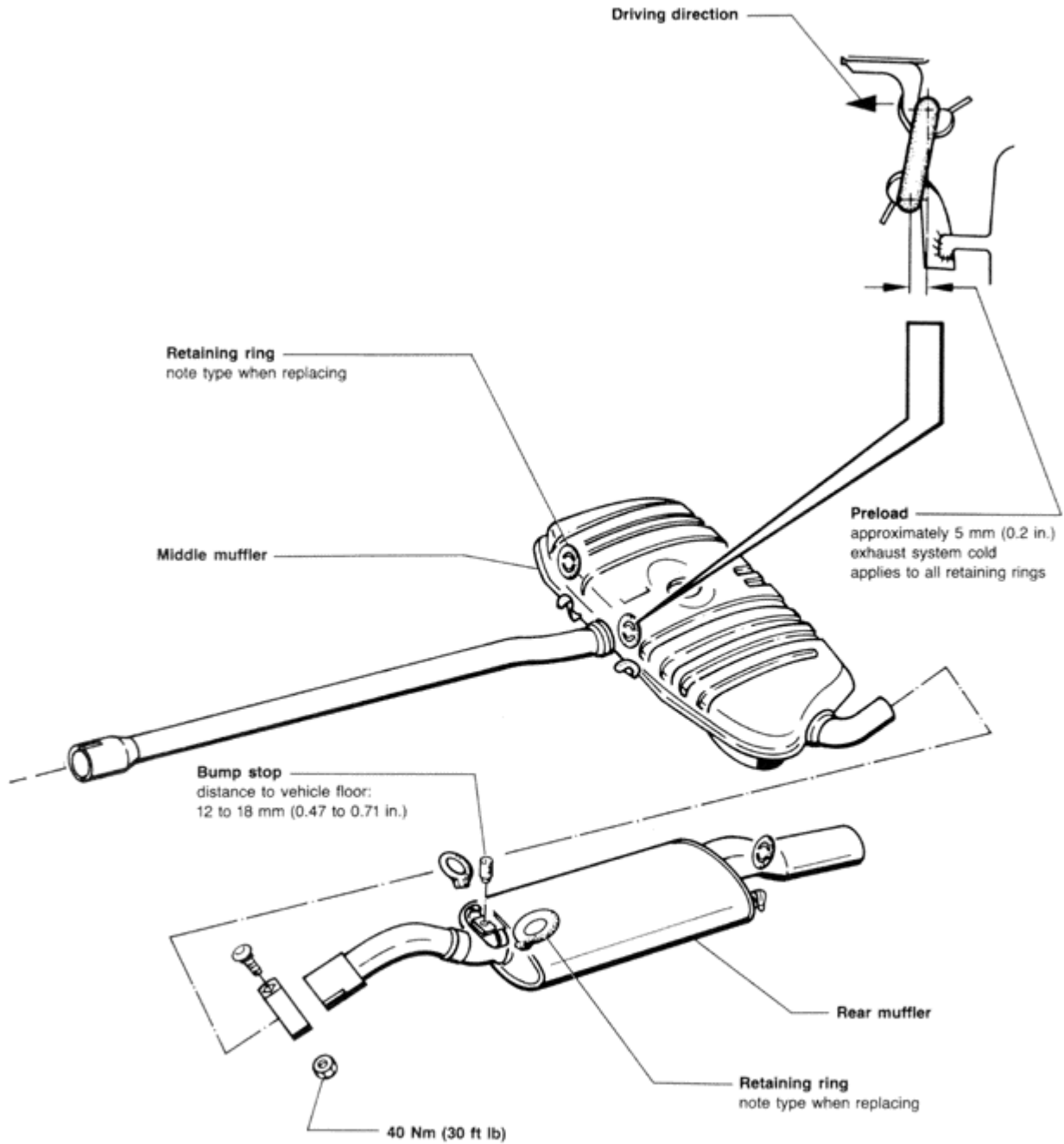
- after working on the exhaust system, it should be free of tension with sufficient clearance between itself and the vehicle body to allow clamp loosening and muffler alignment
- the hanging load should be distributed equally over the entire set of retaining rings
- always replace all self locking nuts



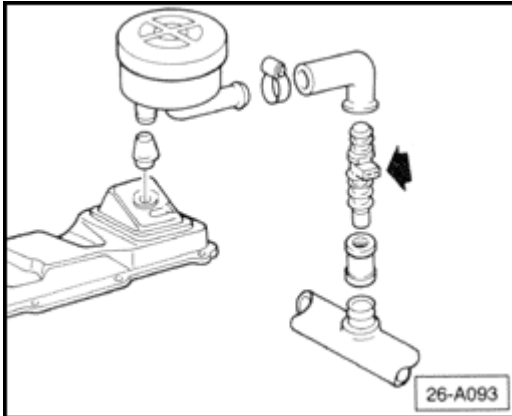
CAUTION!

Do Not re-use any sprays or compounds containing silicone on engines equipped with Oxygen sensors. Do Not use these compounds on or near intake air system or near the Oxygen sensor. Silicone drawn into the intake air system is not burned during combustion and will lead to contamination and malfunctioning of the Oxygen sensor.

Volkswagen Corrado 1990 - 1994
Fuel Systems Supercharger Exhaust Engine Electrical
Exhaust System - Emission Controls (Page 26-3)



Heated crankcase breather, checking



A

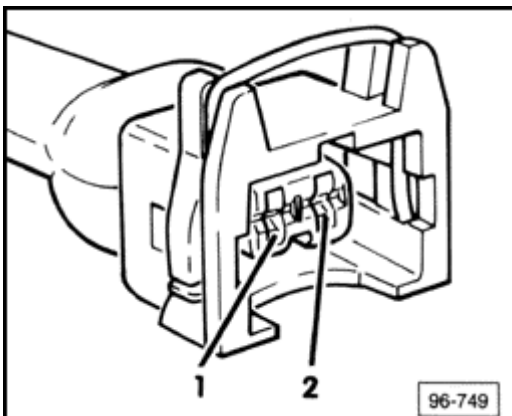
- disconnect heated crankcase breather harness connector
- switch multimeter **US 1119** to resistance range
- connect multimeter to terminals of heater unit (**arrow**)
 - must be between 4 and 17 ohms at approximately 25° C (77° F)

If **NO**

- replace heater unit

If **OK**

- switch multimeter **US 1119** to 20 volt range



A

- connect to terminals 1 and 2 of harness connector
- switch **ON** ignition
 - must be approximately 12 volts

If **NO**

- check wiring and connectors from harness connector to battery using wiring diagram, repair as necessary

Notes

The heater operates whenever the ignition is switched ON, there are no relays or control units in this circuit.

Evaporative system leakage, troubleshooting

WARNING!

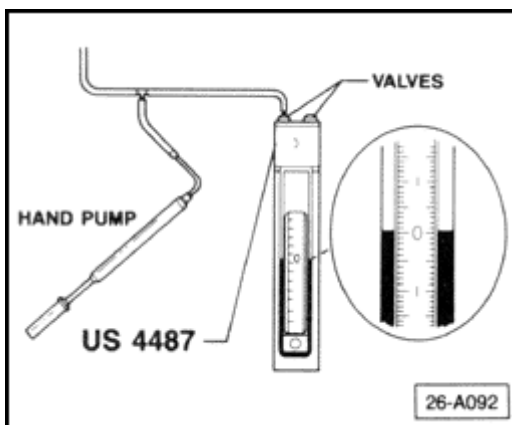
These tests involve the use of equipment that contain mercury.

Mercury is a toxic and hazardous material.

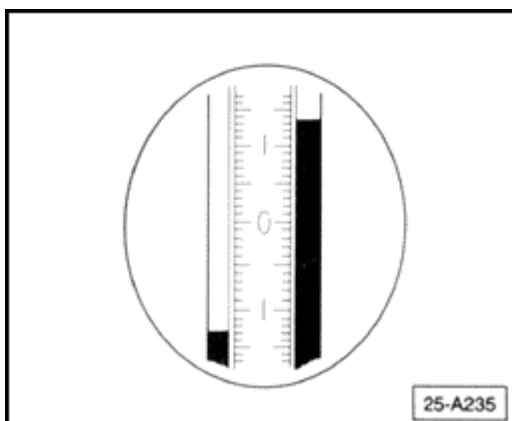
- *exercise extreme care when handling*
- *do NOT allow to come in contact with eyes, nose, skin, etc.*
- *when not in use, store carefully in a properly designated area*
- *be sure both valves are closed when storing tester*

Check these first:

- fuel filter cap securely closed
- fuel level at least 2/3 full (otherwise it will require excessive pumping to pressurize the system)



- disconnect small hose from charcoal canister
- vertically connect slack tube tester **US 4487** at disconnected hose from charcoal canister
- open both slack tube valves a 1/2 turn
- move scale on tester such that the zero line is even with the tops of the mercury columns



- pressurize the system to 1.3 inches of mercury, using the handpump

Notes

If the system reaches the 1.3 inches of mercury soon after you begin pumping, there is reason to suspect that the gravity valve or hoses to it, might be pinched or blocked.

With 2/3 of a tank of fuel it should take considerably more pumping to achieve the 1.3 inches of mercury.

Volkswagen Corrado 1990 - 1994

Fuel Systems Supercharger Exhaust Engine Electrical Exhaust System - Emission Controls (Page 26-6)

After reaching 1.3 inches of mercury on scale, wait 5 minutes:

- system **OK** if pressure is 1.2 inch of mercury or greater

If pressure drops below 1.2 inch of mercury:

- check fuel filler cap for leakage using soap solution, replace if necessary
- pressurize system to 1.3 inches of mercury, wait 5 minutes

If pressure still drops below 1.2 inch of mercury:

- disconnect hose from top of gravity valve (between gravity valve and charcoal canister) and plug hose
- pressurized system to 1.3 inches of mercury, wait 5 minutes

If pressure still drops below 1.2 inch of mercury:

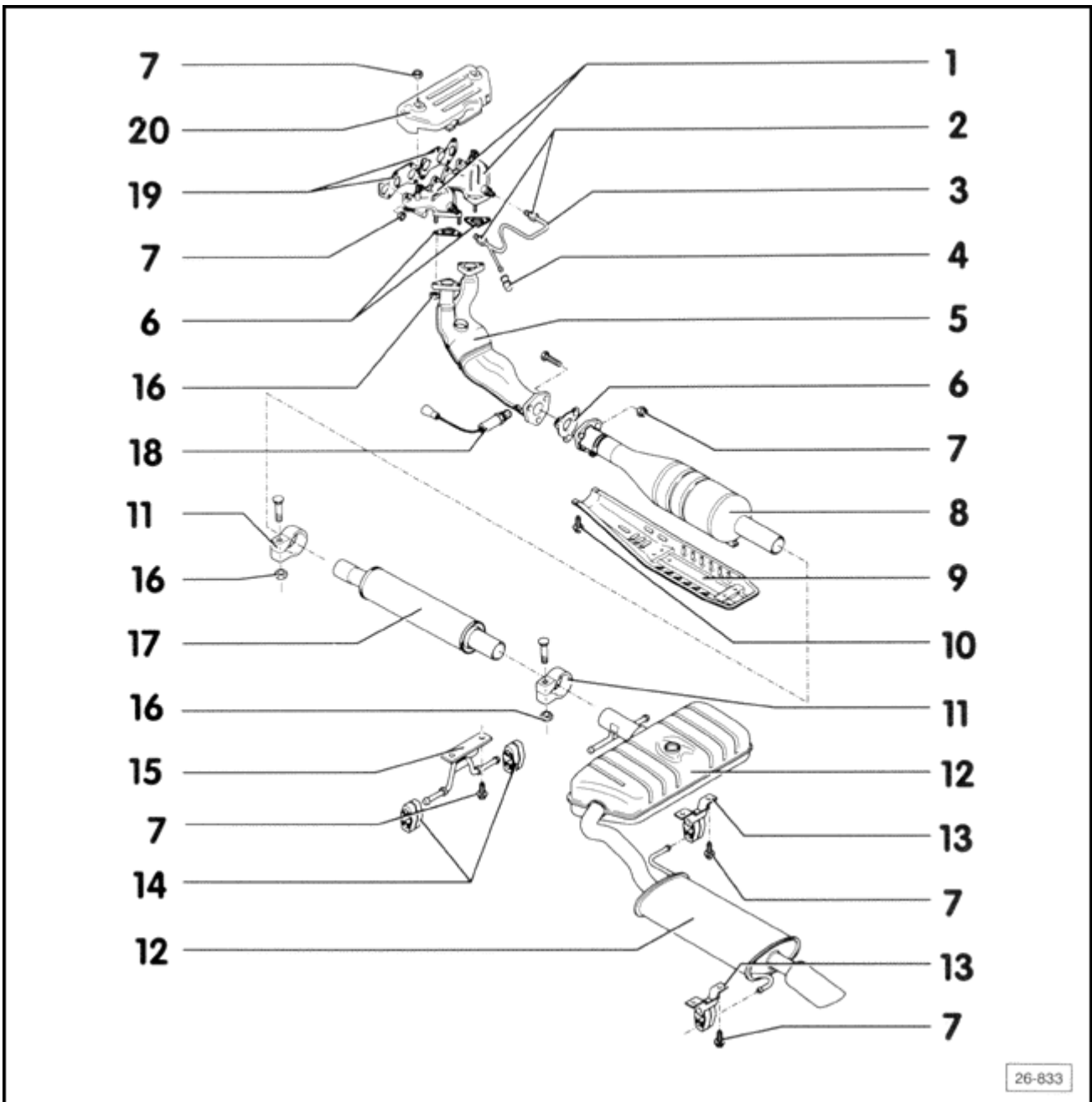
- the leak is between the gravity valve and charcoal canister

If pressure does **NOT** drop below 1.2 inch of mercury:

- re-connect gravity valve and re-pressurize system
- check hoses/connections at expansion tanks and fuel tank by applying a soap solution
- seal, repair or replace as necessary

After you have repaired the leak(s):

- repeat test to verify that you have fixed all of the leakage
- after tests are completed, close both valves on the tester then properly store



Notes

- after working on the exhaust system ensure that the system (cold) is not preloaded
- check for sufficient clearance between the exhaust system and the chassis
- if necessary, loosen the appropriate clamps to allow the mufflers and pipes to be turned and pushed in a longitudinal direction until sufficient clearance is obtained
- the hanging load must be distributed equally over the entire set of retaining rings
- the front muffler assembly is supplied as a single part. For removal and installation; lower the rear axle assembly, see [Repair Group 42](#) for additional information
- always replace self locking nuts

1 - Exhaust manifold
 in two sections

- 2 - 30 Nm (22 ft lb)**
- 3 - CO tap tube**
- 4 - Cap for CO tap tube**
check for secure fit
- 5 - Front exhaust pipe**
- 6 - Gasket**
always replace
- 7 - 25 Nm (18 ft lb)**
always replace
- 8 - Catalytic converter**

Volkswagen Corrado 1990 - 1994
Fuel Systems Supercharger Exhaust Engine Electrical
Exhaust System - Emission Controls (Page 26-7a)

9 - Heat shield

note installed position

10 - 10 Nm (7 ft lb)

11 - Clamp

12 - Center muffler

13 - Hanger bracket for rear retaining ring

note installed position

14 - Retaining ring

note style when replacing

15 - Hanger bracket for mid-exhaust retaining rings

note installed position

16 - 40 Nm (30 ft lb)

17 - Front muffler

installed position

18 - Oxygen sensor (G 39)

- **50 Nm (37 ft lb)**

- for checking see [Repair Group 01 \(Fuel Injection and Ignition\)](#)

- lubricate threads with G5 but do not allow G5 to contact or enter the slotted portion of the sensor tip

19 - Exhaust manifold gasket

- in 2 pieces

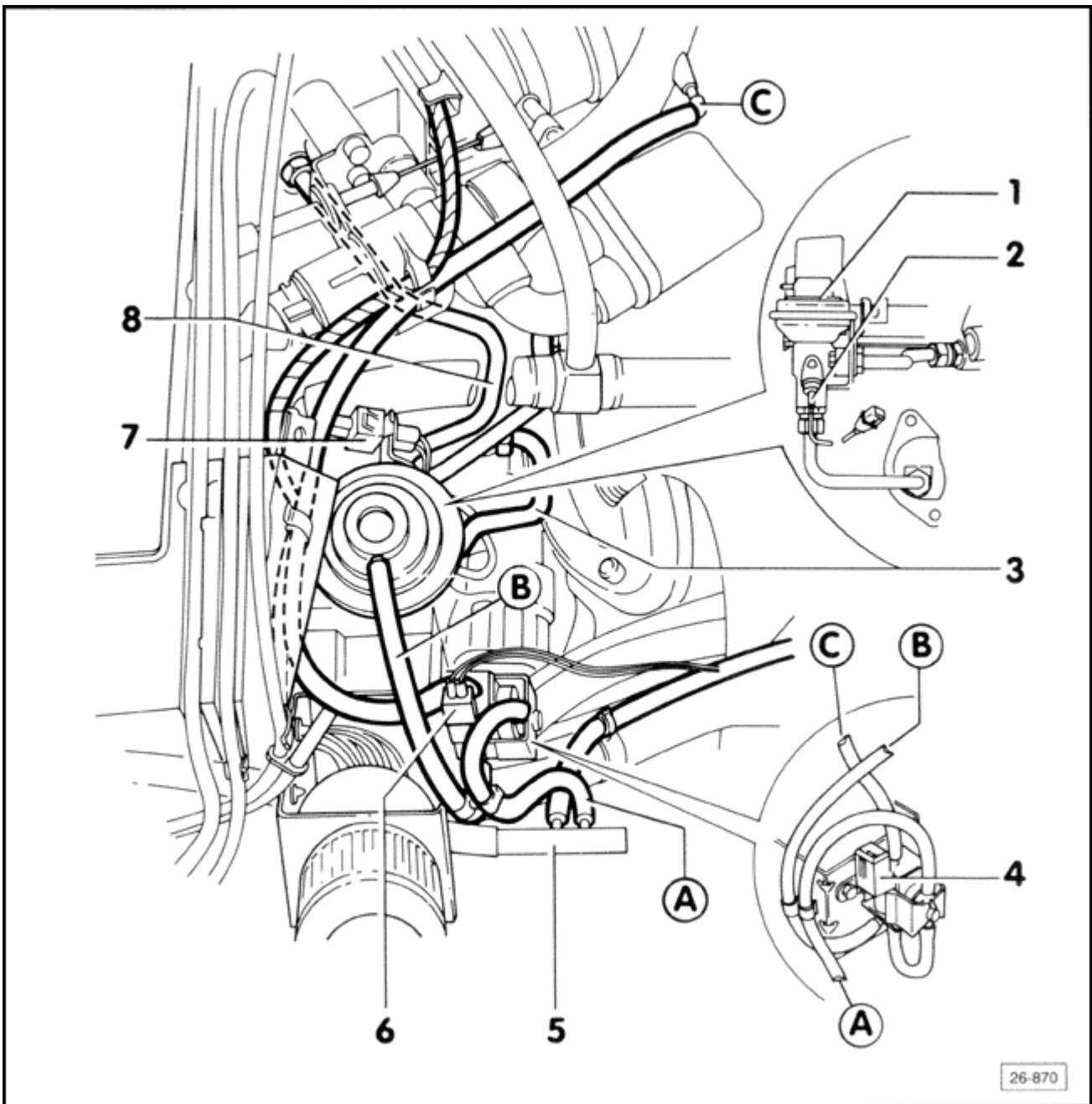
- always replace

- note installed position

20 - Shield

CAUTION!

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Notes

The function of the EGR system is checked via the Motronic On Board Diagnostic system.

- components identified by an * can be checked using On Board Diagnostic, see [Repair Group 01 \(Fuel Injection and Ignition\)](#) for additional information
- components identified by two ** can be checked using Output DTM (Diagnostic Test Mode) see [Repair Group 01 \(Fuel Injection and Ignition\)](#) for additional information
- always replace any seals or O-rings when performing assembly work
- ensure that all vacuum lines and hose connections are tight
- ensure that vacuum lines are not plugged or bent

1 - EGR valve

checking, see [page 26-9](#)

2 - EGR temperature Sensor (G 98)*

- 20 Nm (15 ft lb)

- for electrical checking, see [Repair Group 01 \(Fuel Injection and Ignition\)](#)

3 - Exhaust inlet tube

4 - EGR frequency valve (N 18)**

for checking, see [Repair Group 01 \(Fuel Injection and Ignition\)](#) Output DTM and electrical tests

5 - Connector port

for intake manifold pressure measurement

6 - Harness connector for EGR frequency valve (N 018)

Volkswagen Corrado 1990 - 1994

Fuel Systems Supercharger Exhaust Engine Electrical Exhaust System - Emission Controls (Page 26-8a)

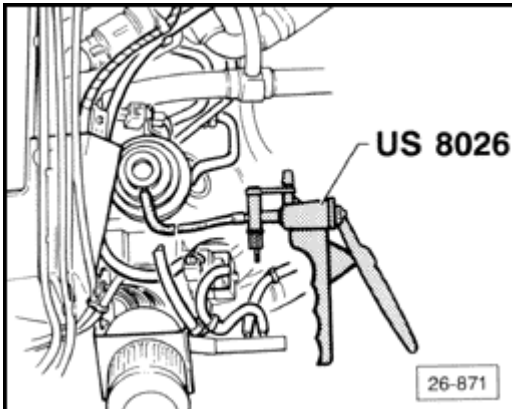
7 - Harness connector for (G 098) temperature sensor

8 - Exhaust outlet tube

EGR valve, checking

Requirement

- engine oil temperature 50° C (122° F) minimum
- start engine and let idle



- disconnect EGR valve vacuum hose (from the connector hose)
- connect **US 8026** hand vacuum pump to EGR valve
- operate vacuum pump
 - idle behavior must deteriorate

If no change

- check exhaust inlet and outlet tubes for flow, clean or replace as necessary
- check exhaust tube connections for tightness, tighten if necessary

If **OK**

- replace EGR valve
- activate Fault memory and then erase, see [Repair Group 01 \(Fuel Injection and Ignition\)](#) for additional information
 - checking and testing can generate a Diagnostic Trouble Code (DTC) for this component which will then be stored in the DTC memory