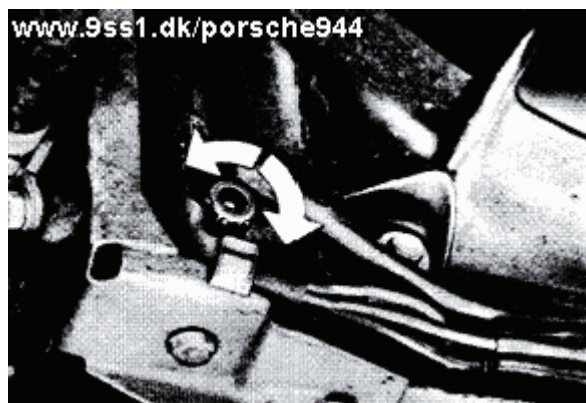
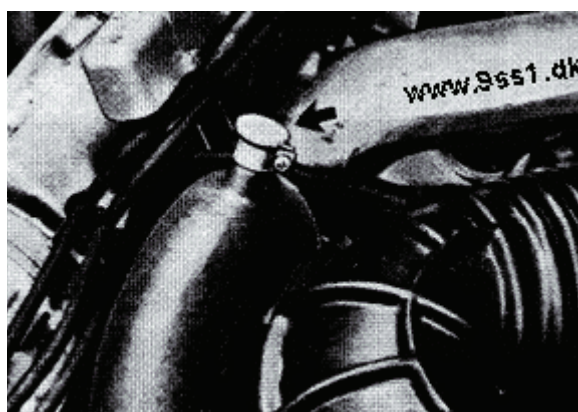


## REPLACING COOLANT AND BLEEDING COOLING SYSTEM

1. Drain coolant (only from cold engine). Set heater control lever to "warm" position and unscrew drain plugs on radiator and crankcase.



2. Install drain plugs.  
Tightening torque:  
Radiator 5 Nm (43 in. lb)  
Crankcase 20 Nm (14 ft lb)  
Leave or set heater control lever to "warm" position and remove bleeder plugs. Add coolant slowly until fluid level in expansion tank is kept at the "max." mark constantly.



3. Start engine and run to operating temperature at fast idle speed (until radiator fan has switched on and off).

If fluid leaving bleeder opening is without air bubbles, insert plug and tighten hose clamp. Check coolant level, adding more coolant if necessary.

COOLANT MIXING CHART  
(Average Values)

Protection to	Antifreeze	Water	Antifreeze	Water
-25° C/ -13° F	40%	60%	3.1 ltr./3.3 US qt	4.7 ltr./5.0 US qt
-30° C/ -22° F	45%	55%	3.5 ltr./3.7 US qt	4.3 ltr./4.5 US qt
-35° C/ -31° F	50%	50%	3.9 ltr./4.1 US qt	3.9 ltr./4.1 US qt



## REPLACING COOLANT AND BLEEDING COOLING SYSTEM (With New Bleeder Adapter)

1. Drain coolant (only when engine is cold).  
Set heater lever at "warm" and unscrew drain plugs on radiator and crankcase.

### Note

The drain plug in the crankcase has been discontinued as from model 89. Draining facility from the auxiliary plastic connector on the water pump. (For 944 turbo with thermostat insert only).



88/150

2. Screw in drain plugs.  
Tightening torque:  
radiator = 5 Nm (43 in. lb)  
crankcase = 20 Nm (14 ft lb)

Leave or set heater lever at "warm" and unscrew bleeder screw.

Add coolant s l o w l y until coolant runs out of bleeder adapter.



Drain a small amount of coolant again until coolant level reaches approx. half full reservoir mark, so that coolant will not overflow when running engine warms up.

3. Tighten bleeder screw several turns, start engine and run at fast idle speed to reach operating temperature (until radiator fan has switched on and off).

Tighten bleeder screw when escaping fluid does not have air bubbles.

Correct coolant level to reach "max," mark on reservoir.

Check and, if necessary, correct coolant level after test driving car.



## CHECKING THERMOSTAT

Place thermostat in a water bath.

Begins to open        = approx.  $83^{\circ} \pm 2^{\circ}\text{C}$  ( $181^{\circ} \pm 3.5^{\circ}\text{F}$ )  
Fully open    = approx.  $90^{\circ}\text{C}$  ( $194^{\circ}\text{F}$ )

Opening travel (distance A) = at least 7 mm



## CHECKING COOLING AND HEATING SYSTEM FOR LEAKS

1. Inspect visually for leaks.
2. Check hoses for porosity and brittleness.
3. Tighten hose clamps.

