

**Haynes**  
*shows you how*

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**BMW 3-Series and Z4 (99-05) Includes 2006 325ci/330ci Coupe and Convertible models Haynes Online Manual.**

## 5 Hose and fluid leak check

1 Visually inspect the engine joints, gaskets and seals for any signs of water or oil leaks. Pay particular attention to the areas around the camshaft cover, cylinder head, oil filter and oil pan. Keep in mind that, over a period of time, some very slight seepage from these areas is to be expected - what you are really looking for is any indication of a serious leak. Should a leak be found, replace the failing gasket or oil seal by referring to the appropriate Chapters in this manual.

2 Also check the security and condition of all the engine-related lines and hoses. Ensure that all cable-ties or securing clips are in place and in good condition. Clips that are broken or missing can lead to chafing of the hoses, lines or wiring, which could cause more serious problems in the future.

3 Carefully check the radiator hoses and heater hoses along their entire length. Replace any hose that is cracked, swollen or deteriorated. Cracks will show up better if the hose is squeezed. Pay close attention to the hose clips that secure the hoses to the cooling system components. Hose clips can pinch and puncture hoses, resulting in cooling system leaks (see illustration).

**5.3 Hoses, like drivebelts, have a habit of failing at the worst possible time - to prevent the inconvenience of a blown radiator or heater hose, inspect them carefully as shown here**

**Check for a chafed area that could fail prematurely.**



**Check for a soft area indicating the hose has deteriorated inside.**



**Overtightening the clamp on a hardened hose will damage the hose and cause a leak.**



**Check each hose for swelling and oil-soaked ends. Cracks and breaks can be located by squeezing the hose.**



**4** Inspect all the cooling system components (hoses, joints, etc) for leaks. Where any problems of this nature are found on system components, replace the component or gasket with reference to [Chapter 3](#).

**5** Where applicable, inspect the automatic transmission fluid cooler hoses for leaks or deterioration.

**6** With the car raised, inspect the fuel tank and filler neck for punctures, cracks and other damage. The connection between the filler neck and tank is especially critical. Sometimes a rubber filler neck or connecting hose will leak due to loose retaining clamps or deteriorated rubber.

**7** Carefully check all rubber hoses and metal fuel lines leading away from the fuel tank. Check for loose connections, deteriorated hoses, crimped lines, and other damage. Pay particular attention to the vent lines and hoses, which often loop up around the filler neck and can become blocked or crimped. Follow the lines to the front of the car, carefully inspecting them all the way. Replace damaged sections as necessary.

**8 Closely inspect the metal brake line which run along the car underbody. If they show signs of excessive corrosion or damage, they must be replaced.**

**9 From within the engine compartment, check the security of all fuel hose attachments and line fittings, and inspect the fuel hoses and vacuum hoses for kinks, chafing and deterioration.**

**10 Check the condition of the power steering fluid hoses and lines.**

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