



**Haynes**  
shows you how

**BMW 3-Series (92-98) & Z3 (96-98) Haynes Online Manual**

## 6 Cylinder head - disassembly

### Note:

New and reconditioned cylinder heads are available from the manufacturer, and from engine overhaul specialists. Be aware that some specialist tools are required for the disassembly and inspection procedures, and new components may not be readily available. It may therefore be more practical and economical for the home mechanic to purchase a reconditioned head, rather than disassemble, inspect and recondition the original head. A valve spring compressor tool will be required for this operation.

### Four-cylinder engine

1 Remove the cylinder head (see [Chapter 2A](#) ).

2 Remove the camshafts, cam followers and camshaft bearing castings (see Chapter2A).

3 Using a valve spring compressor, compress the spring(s) on each valve in turn until the keepers can be removed. Release the compressor, and lift off the spring retainer, springs and spring seats. Using a pair of pliers, carefully extract the valve stem oil seal from the top of the guide (see illustrations) .

#### 6.3a Compressing the valve springs using a spring compressor tool



### 6.3b Removing a valve stem oil seal



4 If, when the valve spring compressor is screwed down, the spring retainer refuses to free and expose the keepers, gently tap the top of the tool, directly over the retainer, with a light hammer. This will free the retainer.

5 Withdraw the valve through the combustion chamber.

6 It is essential that each valve is stored together with its keepers, retainer, springs, and spring seats. The valves should also be kept in their correct sequence, unless they are so badly worn that they are to be renewed. If they are going to be kept and used again, place each valve assembly in a labeled cellophane bag or similar small container (see illustration) . Note that No. 1 valve is nearest to the timing chain end of the engine.

### 6.6 Place each valve and its associated components in a labeled cellophane bag



## Six-cylinder engine

7 Remove the cylinder head (see [Chapter 2B](#) ).

8 Remove the camshafts, cam followers and camshaft bearing castings (see [Chapter 2B](#) ).

9 Follow the procedure outlined in steps 3 through 6.

