

Cylinder Heads

Installation

Install the cylinder heads in the reverse order of removal:

CAUTION: Take care not to bend the suction pipe when installing the cylinder heads.

NOTE:

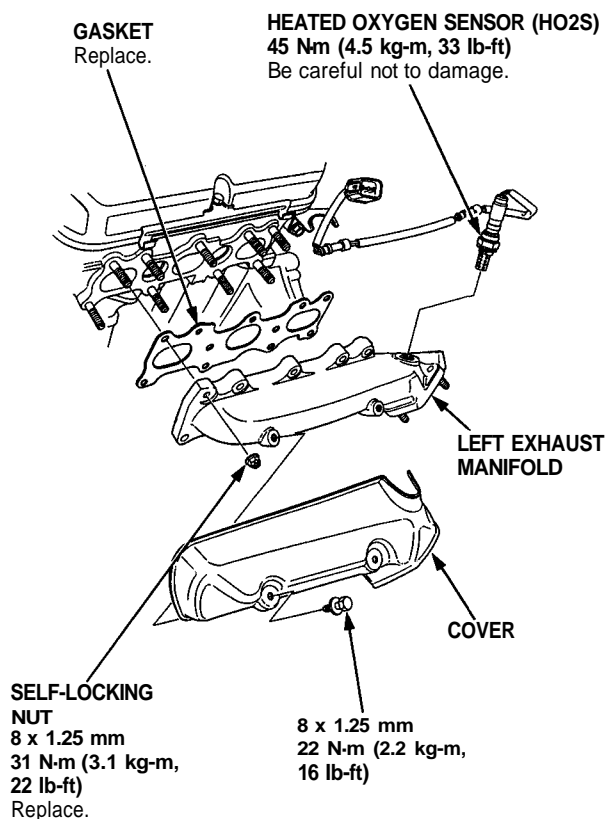
- Always use new head gaskets.
- Cylinder heads and engine block surface must be clean.
- Turn the crankshaft so that No. 1 piston is at TDC (see page 6-34).

1. Install the left and right exhaust manifolds to each cylinder head, then tighten the self-locking nuts in a crisscross pattern in two or three steps, beginning with the inner nut.
 - Apply oil to the self-locking nut threads.
 - Always use new exhaust manifold gaskets.

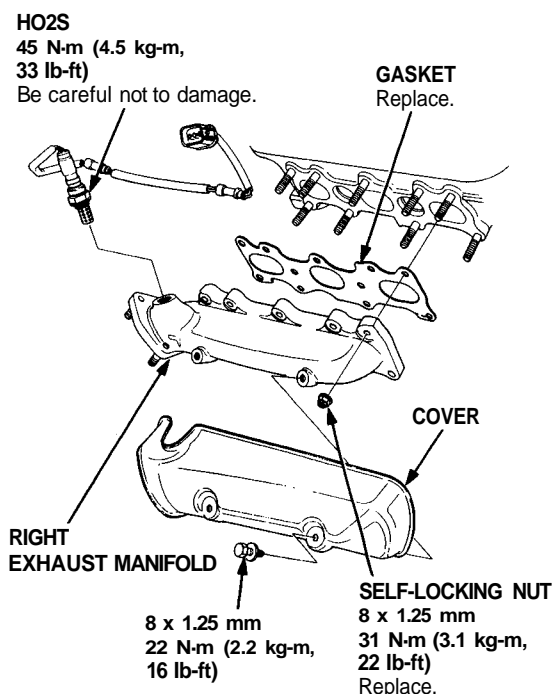
CAUTION: Do not tighten the self-locking nuts with an air wrench if the heated oxygen sensors are already installed.

2. Install the exhaust manifold covers.

LEFT EXHAUST MANIFOLD:



RIGHT EXHAUST MANIFOLD:

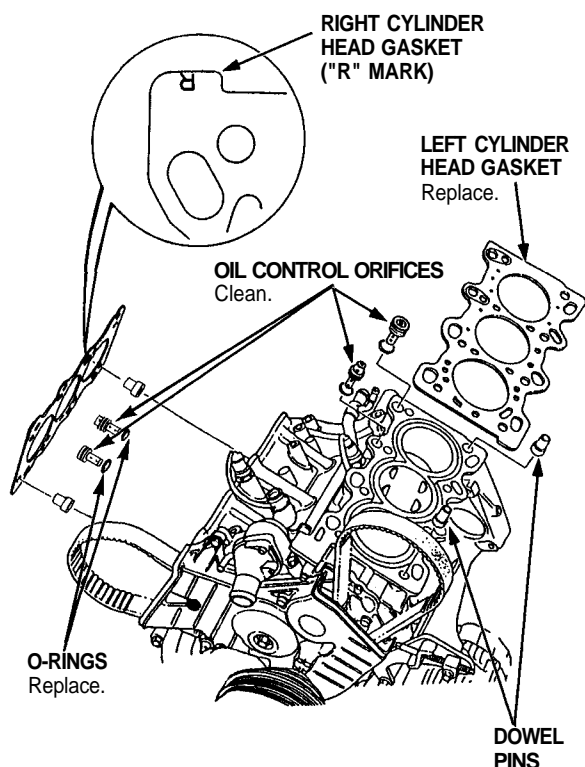




3. Clean the oil control orifices and install them with new O-rings, dowel pins and cylinder head gaskets.

NOTE:

- The oil control orifices and dowel pins must be aligned.
- Always use new O-rings and new cylinder head gaskets.



4. Install the cylinder heads on the engine block.

5. Tighten the cylinder head bolts sequentially in two or three steps.
 - Apply clean engine oil to the bolt threads and washer contact surfaces.

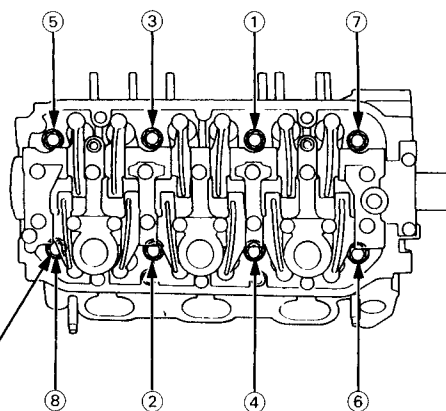
Specified Torque:

11 x 1.5 mm bolts

78 Nm (7.8 kg-m, 56 lb-ft)

NOTE: We recommend using a beam-type torque wrench. When using a preset-type torque wrench, be sure to tighten slowly and not to overtighten.

CYLINDER HEAD BOLTS TORQUE SEQUENCE



CYLINDER HEAD BOLTS

Apply engine oil to the bolt threads and washer contact surfaces.

6. Apply liquid gasket to the head mating surface of the No. 1 and No. 7 camshaft holder, then install the cylinder head cover.
 - Apply liquid gasket to the shaded areas.

