Technical Bulletin

Model	Group
6 Cyl.	1

Subject: Camshaft Housing and Manifold Sealing

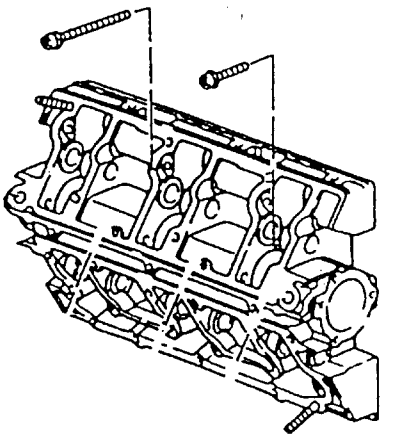
Part Identifier	Number
1503	9403

ATTENTION: Service Manager / Service Technician

Models Affected: *911 Carrera 2/4, 911 Turbo 3.6*

Concern:

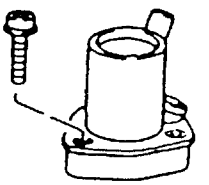
Attaching the camshaft housing to the cylinder heads and attaching the intake manifolds. As of February 2, 1993 production, the attaching of the camshaft housings to the cylinder heads has changed from studs/nuts to cap-head bolts (Allen bolts).



General Information:

For the normally aspirated engine the 8x55 bolts for the cam housing are micro-encapsulated for additional sealing. For the 911 Turbo 3.6, these same bolts are sealed using high temperature RTV sealer. For both engine types, the 8x30 bolts of the cam housings are installed without sealer.

The intake manifolds of the normally aspirated engines are now attached using 6x35 cap-head bolts without additional sealing.



Repair Procedure:

1. During repairs, the cap-head bolts can be installed in all 3.6 liter engines normally aspirated and turbo charged.
2. When removing and installing one or more cylinder head(s), the cap-head bolts should be used for reassembly.
3. It is not permitted to mix cap-head bolts with studs during assembly of the cam housings.
4. The 8x55 cap-head bolts for the camshaft housing as obtained through the Parts Department are the same for turbos and normally aspirated engines. Only cap-head bolts used in the turbo engine are available. The sealing of the 8x55 cap-head bolts, however, is different for normally aspirated and turbo engines.

SERVICE

Repair Procedure (cont.):

5. The following information for attaching the camshaft housings to the cylinder heads applies only to engines using the cap-head bolts.

   For the **normally aspirated engines**, there are two (2) possible procedures:

   1. When repairing engines with cap-head bolts, the cap-head bolts can be re-used. Before assembly, clean the threads of the 8x55 cap-head bolts using a steel brush. Remove all grease/oil. Coat the bolt threads with Loctite 574 and assemble. Install the 8x30 cap-head bolts without sealer.

   2. Assemble the engine using the 8x55 cap-head bolts used for turbo engines. Seal the threads of the bolts using "high temperature" RTV sealer. Install the 8x30 cap-head bolts without sealer.

      Color differences between sealers:

Microencapsulated cap-head bolt:	Dry blue sealer on thread
Loctite 574:	Bright orange
Permatex high-temp RTV:	Red/brown silicone base

   For the **turbo engine**, only one procedure is to be used:

   When repairing engines with cap-head bolts, the cap-head bolts can be re-used. Before assembly, clean the threads of the 8x55 cap-head bolts using a wire brush. Remove all oil/grease. Coat the 8x55 bolt threads with Permatex high-temp RTV and install. Install the 8x30 cap-head bolts without sealer. Tighten torques are the same as before:

   Camshaft housing bolts: 8x55 and 8x30 - 23Nm
   Intake manifold bolts: 6x35 - 10Nm

Parts Information:

Part Number	Description
900 067 350 02	8x55 cap-head bolts
999 218 081 02	8x30 cap-head bolts
900 075 345 02	6x35 cap-head bolts
PNA 915 345 40	Permatex high-temp RTV
PNA 043 010 00	Loctite 574