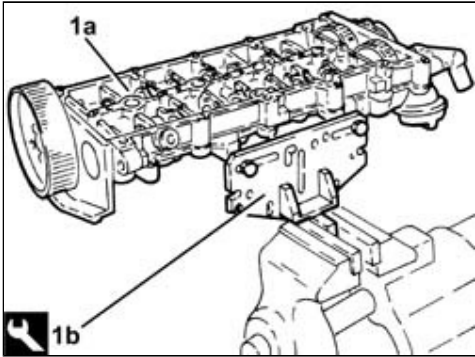
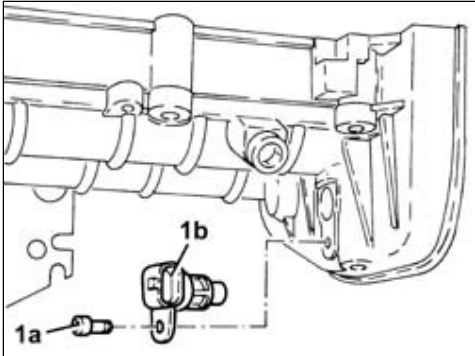




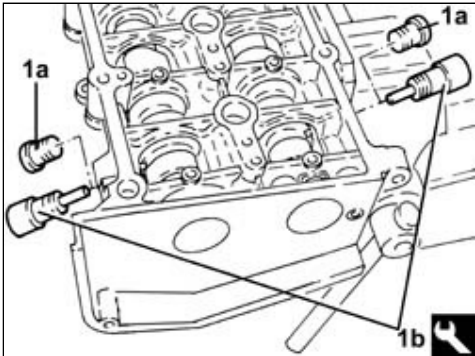
 Removing ([Refitting](#) )

1. Position the camshaft housing (1a) in a vice using the tool (1b).

Tool	Description	Function	Validity
1860470000	Supporto	Revisione testa cilindri	2.0 JTDM



1. Undo the screw (1a) and remove the cam angle sensor (1b).



- Check that the camshaft end float is within the recommended values using a dial gauge.

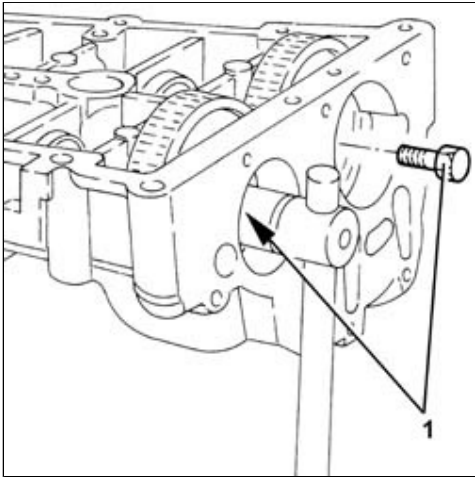
Size	Value	Validity
Camshaft end float (mm)	0.100 ÷ 0.230	2.0 JTDM

- If the camshaft end float is not within the recommended values, replace the worn components when reassembling the cylinder head.

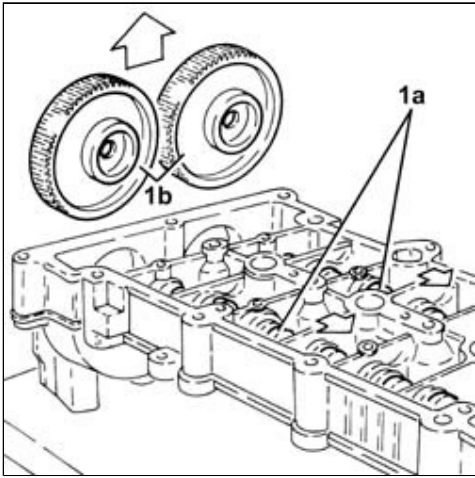
1. Remove the plugs (1a) and fit the camshaft timing tools (1b) on the camshaft housing.

 Check that the tools marked "A" are correctly fitted in the seats on the camshafts.

Tool	Description	Function	Validity
1870896900	Dime	Messa in fase motore	2.0 JTDM



1. Undo the screws securing the camshaft gears.

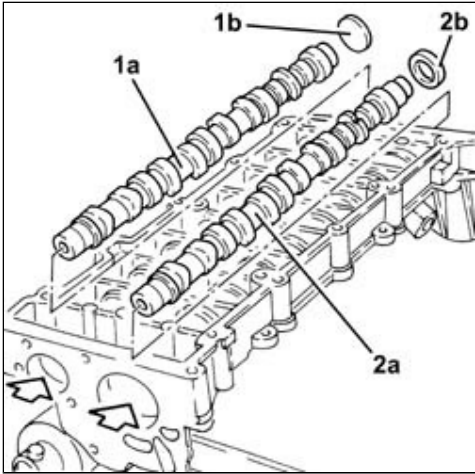


- Remove the camshaft timing tools from the camshaft housing.

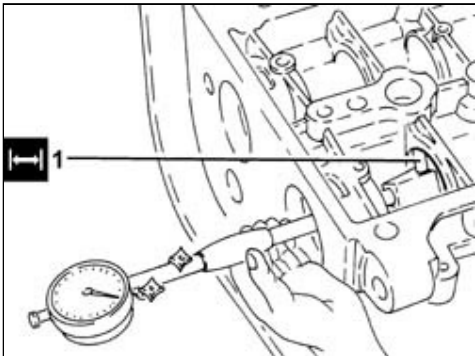
Tool	Description	Function	Validity
1870896900	Dime	Messa in fase motore	2.0 JTDM

1. Withdraw camshafts (1a) as far as necessary and remove camshaft idler gears (1b).

1. Using a suitable drift, extract the inlet side camshaft (1a) and the plug (1b).



2. Using a suitable drift, extract the exhaust side camshaft (2a) and the oil seal (2b).
- Remove the exhaust side camshaft oil sealing ring.



⬇️ Refitting ([Removing](#) ⬆️)

- To determine whether the camshaft housing needs replacing or whether the camshafts are worn, carry out the dimension checks listed below.
- Check that the diameter of the camshaft journals corresponds to the recommended figures; if not, replace the worn camshaft.

Size	Value	Validity
Camshaft first journal diameter (mm)	43.600 ÷ 43.615	2.0 JTDM
Size	Value	Validity
Camshaft second journal diameter (mm)	43.400 ÷ 43.415	2.0 JTDM
Size	Value	Validity
Camshaft third journal diameter (mm)	43.200 ÷ 43.215	2.0 JTDM
Size	Value	Validity
Camshaft fourth journal diameter (mm)	43.000 ÷ 43.015	2.0 JTDM
Size	Value	Validity
Camshaft fifth journal diameter (mm)	30.000 ÷ 30.015	2.0 JTDM

- Check that the nominal camshaft cam lift corresponds to the recommended figures; if not, replace the worn camshaft.

Size	Value	Validity
Camshaft end float (mm)	0.100 ÷ 0.230	2.0 JTDM
Size	Value	Validity
Camshaft end float (mm)	0.100 ÷ 0.230	2.0 JTDM

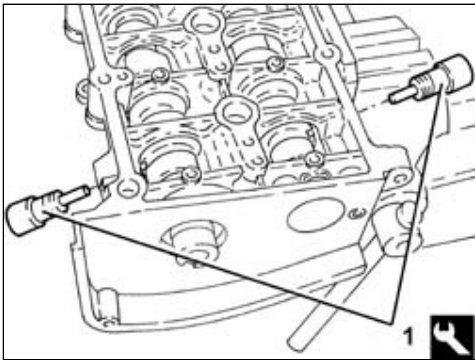
1. Check that the diameter of the camshaft mounts corresponds to the recommended figures; if not, replace the single camshaft housing.

Size	Value	Validity
------	-------	----------

Camshaft first support diameter (mm)	43.646 ÷ 43.671	2.0 JTDM
Size	Value	Validity
Camshaft second mounting diameter (mm)	43.446 ÷ 43.471	2.0 JTDM
Size	Value	Validity
Camshaft third support diameter (mm)	43.246 ÷ 43.271	2.0 JTDM
Size	Value	Validity
Camshaft fourth support diameter (mm)	43.046 ÷ 43.071	2.0 JTDM
Size	Value	Validity
Camshaft fifth support diameter (mm)	30.045 ÷ 30.070	2.0 JTDM

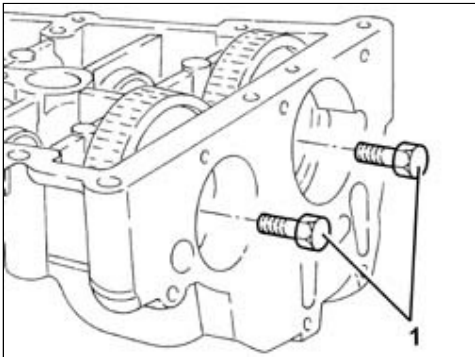
- Place the camshafts in their housings.
- Refit the camshaft gears in their housings and secure them without tightening the screws.

1. Fit the camshaft timing tools.



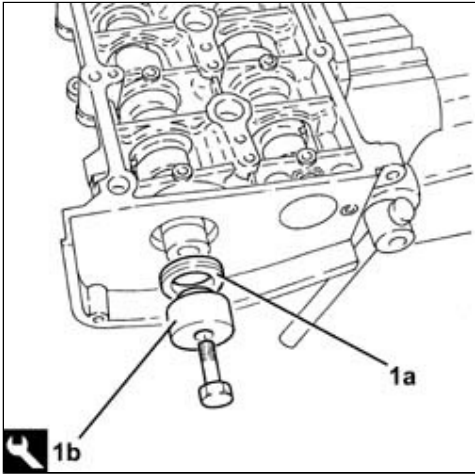
Tool	Description	Function	Validity
1870896900	Dime	Messa in fase motore	2.0 JTDM

1. Tighten the camshaft gear screws to the prescribed torque.



Component	Fastening	Ø	Value (daNm)	Validity
Camshaft gears	Screw	M12	2.9 ÷ 3.2 + 40°	2.0 JTDM

1. Fit the exhaust side camshaft front oil seal (1a) using the tool (1b).



Tool	Description	Function	Validity
1870896800	Introduttore	Introduzione paraolio anteriore albero distribuzione lato scarico	2.0 JTDM

- Fit the inlet side camshaft plug.
- Place the exhaust side camshaft toothed drive pulley in its housing and secure it without tightening the screw.
- Remove the support tool complete with camshaft housing from the vice and separate them.

Tool	Description	Function	Validity

1860470000	Supporto	Revisione testa cilindri	2.0 JTDM
------------	----------	--------------------------	----------