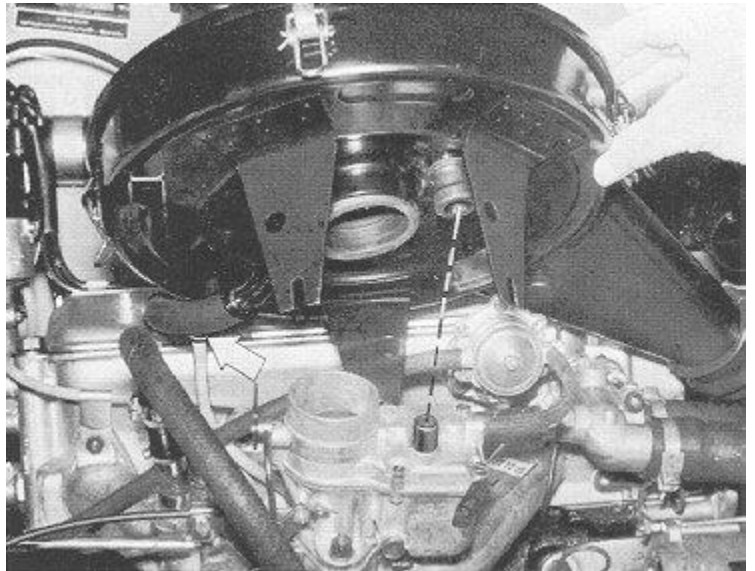


[BMW 1502-2002 turbo»11 - Engine»11 12 100 - Removal and fitting of cylinder head head](#)

Open bonnet (hood).
Cover wing surfaces with protective aprons.
Pull off breather tube.
Pull hose with connector out of breather tube.
Dismantle air filter with distributor body.

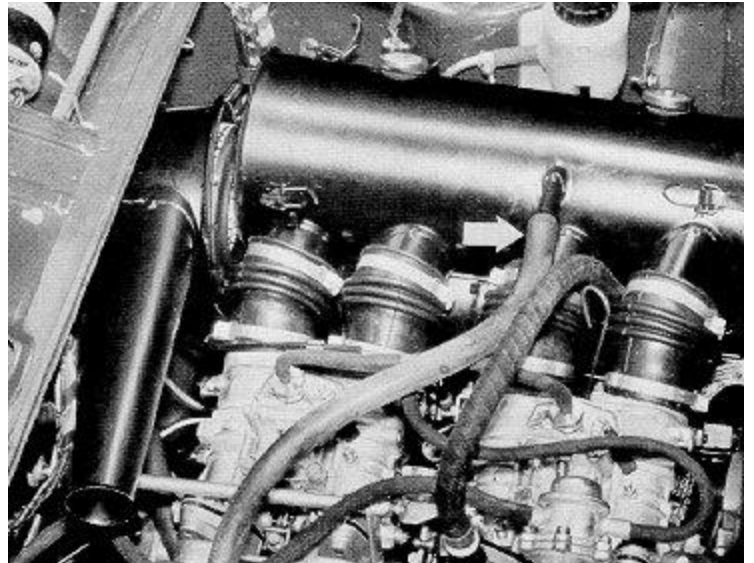


Fitting instruction: Pay attention to freeness of throttle butterfly. Fix throttle butterfly at constant temperatures above + 10° C (50° F).

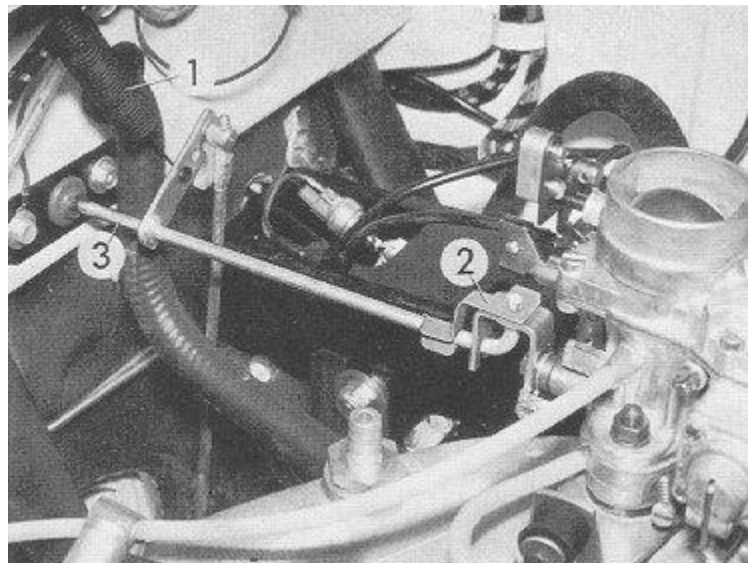


Twin-barrel carburettor models

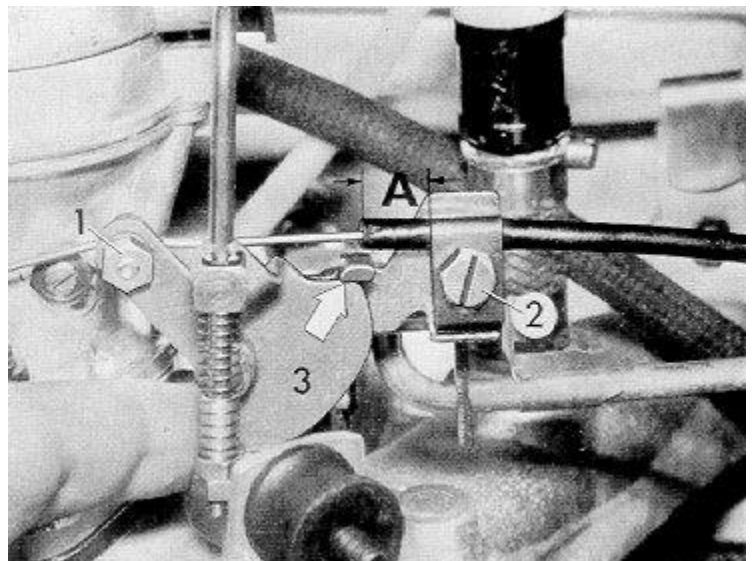
Pull off breather tube.
Remove air filter.



Disconnect earth lead from battery.
Drain off cooling water and collect (antifreeze).
Fitting instruction: Before refilling the cooling system move the heater lever to "warm". Fill up with water and close radiator cap by turning to stop II.
Heat cooling water to 80° C (177° F). After the thermostat has opened bleed the cooling system by turning the radiator cap to stop I. Check the water level and close radiator cap to stop II. Detach return spring (1) and clamp spring (2). Disconnect control rod (3) on carburettor and pull out from support on bulkhead.

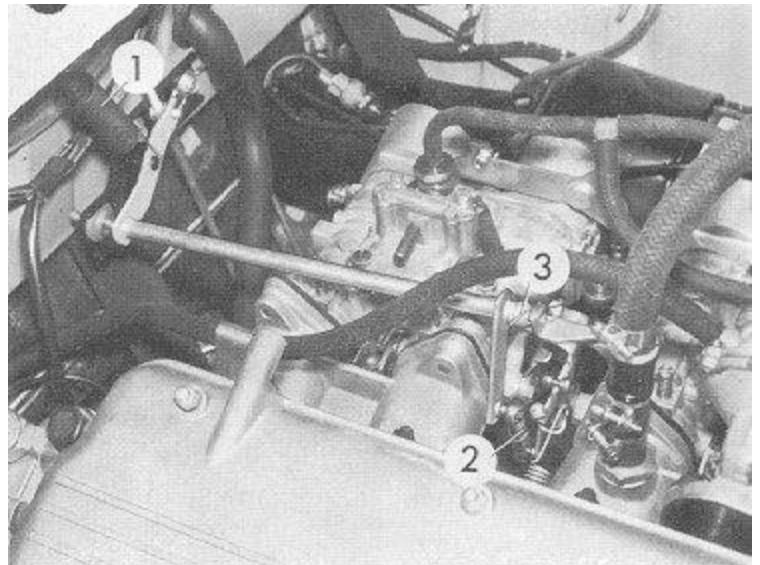


Loosen clamp screw (1) in clamp (2).
Pull out choke cable.
Fitting instruction: Secure choke cable sleeve.
Warning: Sleeve may project forwards by 15 mm (0.59") max. otherwise the choke flap will not close fully.
Push choke cable at instruments panel into the bottom notch. Press choke lever (3) against stop.
Tighten clamp screw in this position.



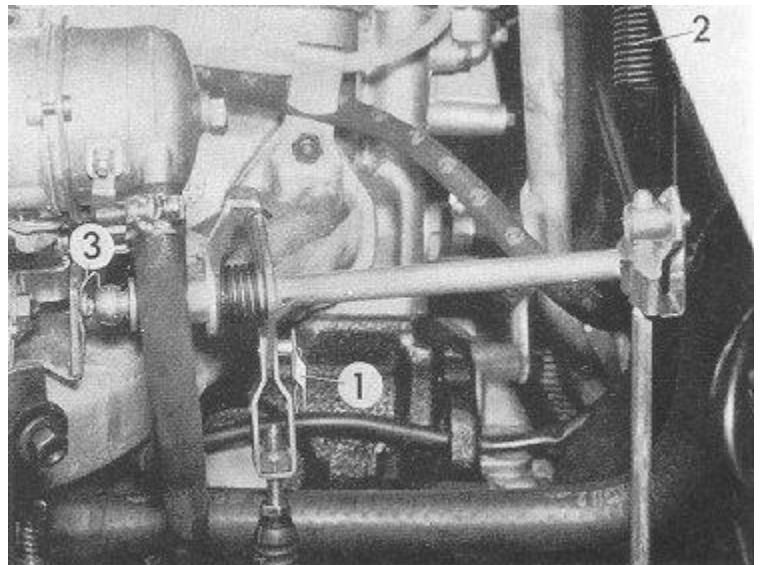
Twin-barrel carburettor models

Detach return spring (1) and pull rod (2).
Lift out retainer (3) from torsion shaft on carburettor.
Pull back torsion shaft towards bulkhead until ball is free of torsion shaft.
Pull out torsion shaft forwards.



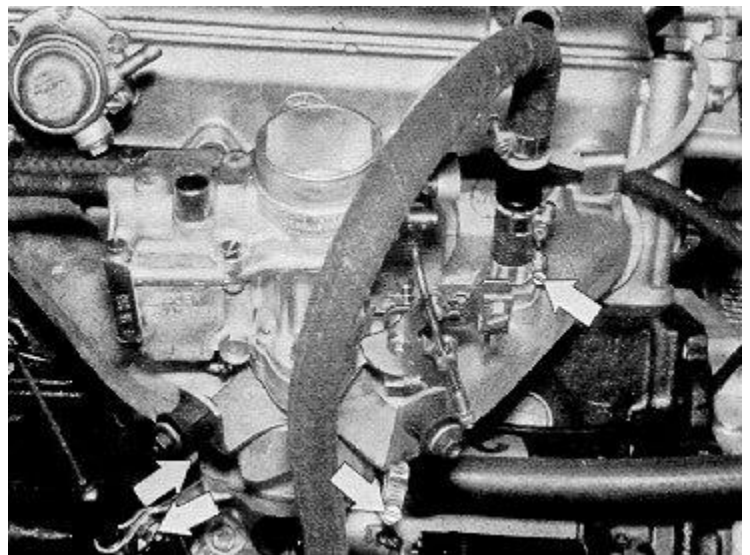
Automatic models

Detach clamp spring (1) and return spring (2).
Lift wire retainer (3).
Pull back torsion shaft towards bulkhead until ball is free of torsion shaft.
Pull out torsion shaft forwards.



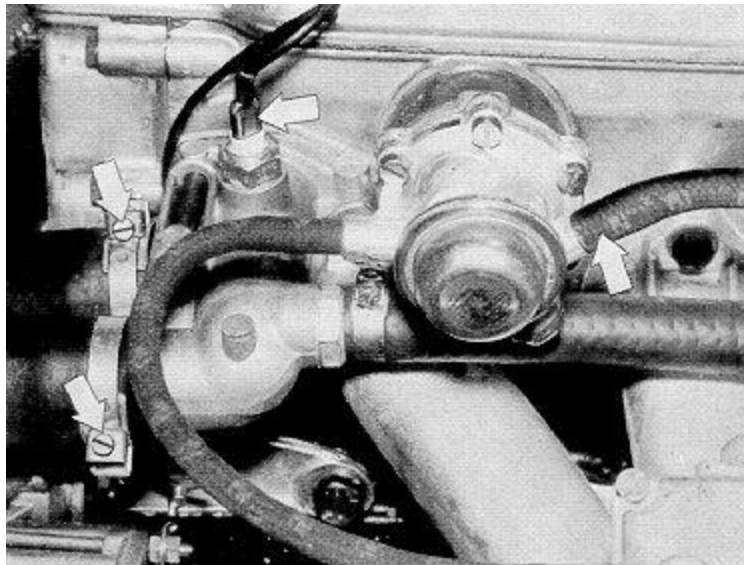
Remove vacuum hose with check valve from threaded manifold and detach warm water hoses¹⁾ from intake manifold. Remove oil dipstick holder.

¹⁾ Single carburettor models only



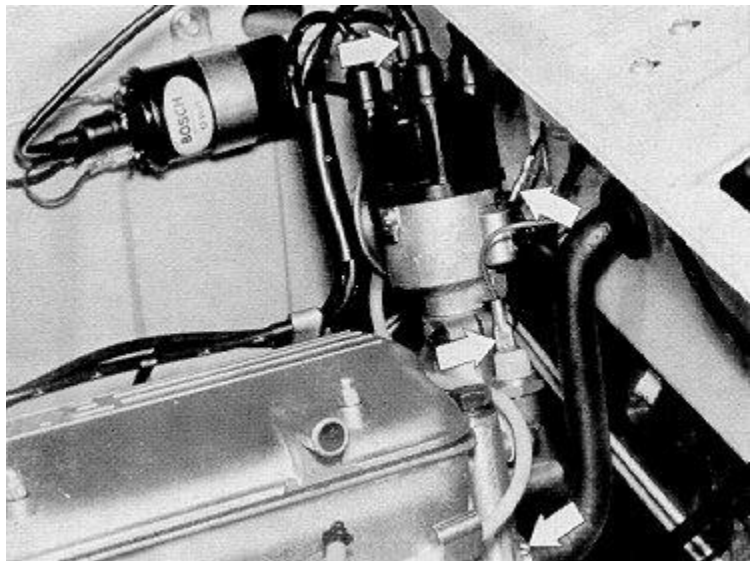
Pull fuel hose off fuel pump and cable off remote thermometer switch.

Remove water hoses from branch stub.



Pull cable off oil pressure switch and terminal 1 of distributor. Remove distributor cap. Pull cable 4 out of coil and detach ignition leads.

Detach warm water hose from cylinder head.



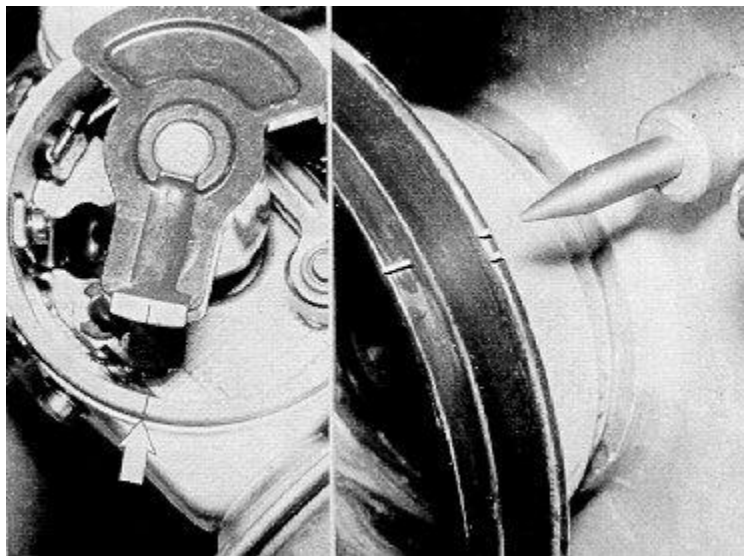
Removal of upper timing case cover - 11 14 100.

Move cylinder in piston 1 to TDC.

The distributor rotor must point at the notch in the distributor housing.

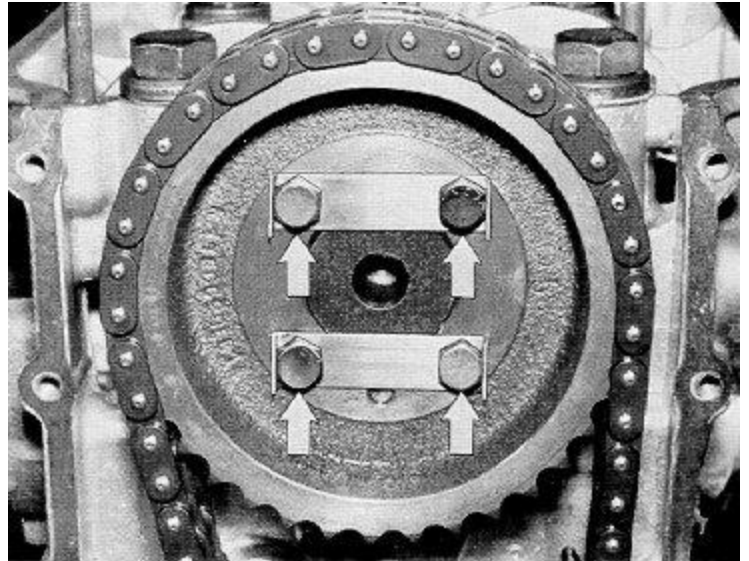
The indicator must point at the second notch on the belt pulley when turning clockwise.

[→11 14 100](#)

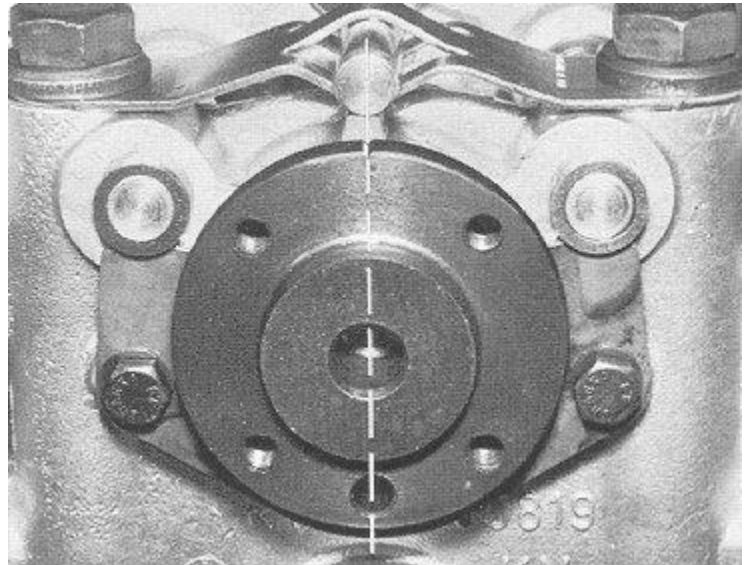


Removal of chain tightener piston - 11 31 090.
Open keeper plates.
Remove sprocket.

→ [11 31 090](#)

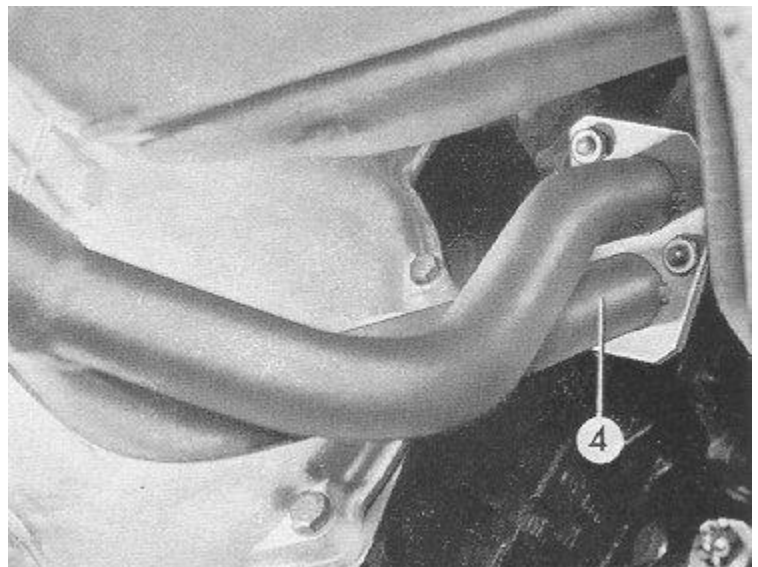


Note when fitting: Fit chain in such a way that the hole for the dowel pin faces downwards. The notch in the camshaft flange must be aligned with the cast projection in the cylinder head.



Remove exhaust pipe (4) from exhaust manifold.
Note when fitting: If loud drumming is heard, fasten exhaust pipe (4) to the gearbox free of tension with support element; see 18 00 020.

→ [18 00 020](#)



Unscrew cylinder head bolts and remove cylinder head.

Note when fitting: Tighten bolts 1...10 in series, working in three consecutive operations¹⁾.

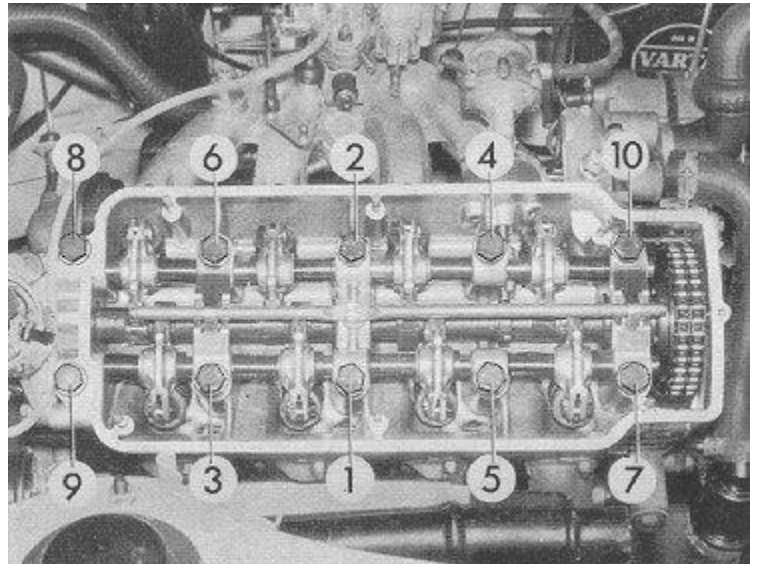
Run engine until it reaches normal operating temperature.

After testing, let engine cool to 35° C (95° F).

Tighten cylinder head bolts finally¹⁾.

Note: After 1000 km (app. 600 miles), take up slack at cylinder head bolts.

First loosen bolts slightly, then tighten to specified torque.



→ ¹⁾ [See specifications](#)

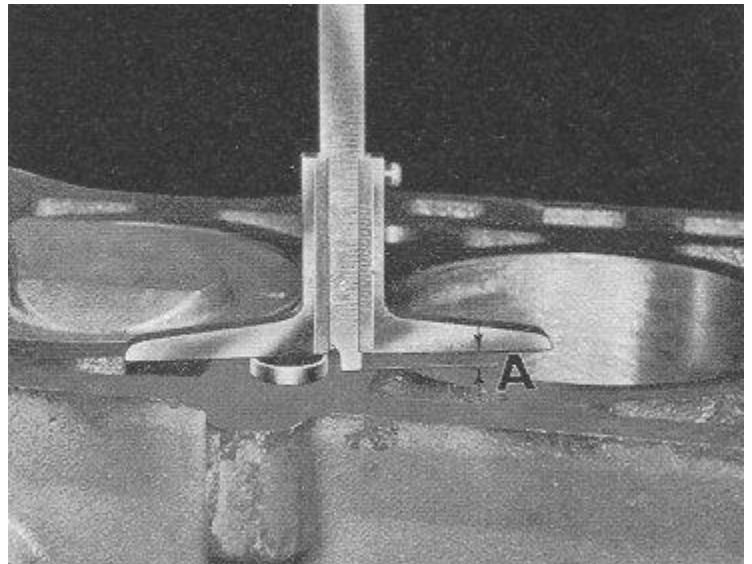
Note when fitting: Check overhang of guide sleeves for cylinder head and cylinder head sealing by measuring depth. Max. overhang A: 5 mm (0.1968").

Important: Make sure there is no oil in the blind holes, as there is otherwise a risk that although the bolts are tightened to the prescribed torque they will not bear on the cylinder head with the force required. There is also a risk that the cylinder crankcase will crack.

The cylinder head sealing must always be replaced and cannot be used again.

Adjust valve clearance cf. 11 34 004.

Adjust engine idle speed cf. 13 00 004.



→ [11 34 004](#)

→ [13 00 004](#)