

SYNGEAR PUSHROD TUBE FOR VW-BEETLE ENGINE TYPE 1

INSTALLATION INSTRUCTION

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SECTION 1 – PRELIMINARY REMARK

The Syngear Pushrod Tube for the VW-Beetle Engine Type 1 is available as a short version for the 1200 ccm engine and in a long version for the 1600 ccm engine.

SECTION 2 – SAFETY RULES

- **Protect your eyes by a pair of goggles when installing the Syngear Pushrod Tube;**
- **Do not target to persons with the loaded pressure spring.**

SECTION 3 – PARTS LIST

Position Number	Box Number	Part Designation	Part Number	Amount
1	1	Pushrod Tube		8
2	2	Pressure Spring		8
3	3	Pressure Washer		16
4	4	Gasket Ring		16

SECTION 4– TOOL LIST

Position Number		Tool Designation	Tool Number	Amount
1		Flash Light	without	1

Besides the flash light no additional means are necessary for installing and removing of the Syngear Pushrod Tube.

SECTION 5 – STARTING CONFIGURATION

- the steel protection sheets below the cylinders are removed on both sides;
- the heat exchangers are removed on both sides;
- the old pushrod tubes are removed;
- the supporting area for the gaskets is cleaned.

SECTION 6 – PREPARING THE PUSHROD TUBES

- Lubricate the gaskets with a small amount of engine oil;
- provide all pushrod tubes at the end with the short recess with a pressure washer and a gasket;
- insert the pressure spring on the end with the long recess and load the pressure spring by means of the pressure washer shortly before installing of the respective pushrod tube;

- for that purpose hold the pushrod tube with your left hand positioned closely near the spring area and load the spring by the fingers of your right hand by pushing the spring by means of the pressure washer, whereas the pressure washer is pushed beyond the projecting ring and then is tilted by the thumb of the left hand over the projecting ring, so that a clamping occurs;
- now insert a gasket on the free end;
- pay attention that between the gasket and the clamped washer there is a clearance of about 2 mm;
- pay attention that the clamping is not loosened.

SECTION 7 – INSTALLING THE PUSHROD TUBES

- start with installing of the first pushrod tube closely nearby the clutch;
- for that purpose insert the pushrod tube with the spring side facing the engine casing in the respective opening, whereas the opposite end of the pushrod tube is looking downwards;
- pay attention that the clamping is not loosened;
- having finished the inserting of the pushrod tube in the opening at the engine casing side rotate the pushrod tube upwards by applying a small pressure force in the direction to the engine casing until the gasket reaches its supporting opening at the cylinder head;
- now loosen the clamping of the pressure spring by applying a pressure force at the pushrod tube by means of the right hand in a direction to the engine casing;
- finally check whether the pressure spring and the gaskets are seated properly;
- repeat the process with all pushrod tubes.

SECTION 8 – REMOVING THE PUSHROD TUBES

- start with the removing of the first pushrod tube closely nearby the exhaust;
- for that purpose push the pushrod tube with your right hand in a direction to the engine casing;
- rotate the pushrod tube at the cylinder head side downwards after the gasket at the cylinder head side has moved out of its supporting area;
- now pull the pushrod tube also out of the opening in the engine casing;
- repeat this process with all pushrod tubes.

