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TECHNICAL REPORT

Clearance valve adjustment on
VAG 1.0 and 1.4 petrol engines



PURPOSE

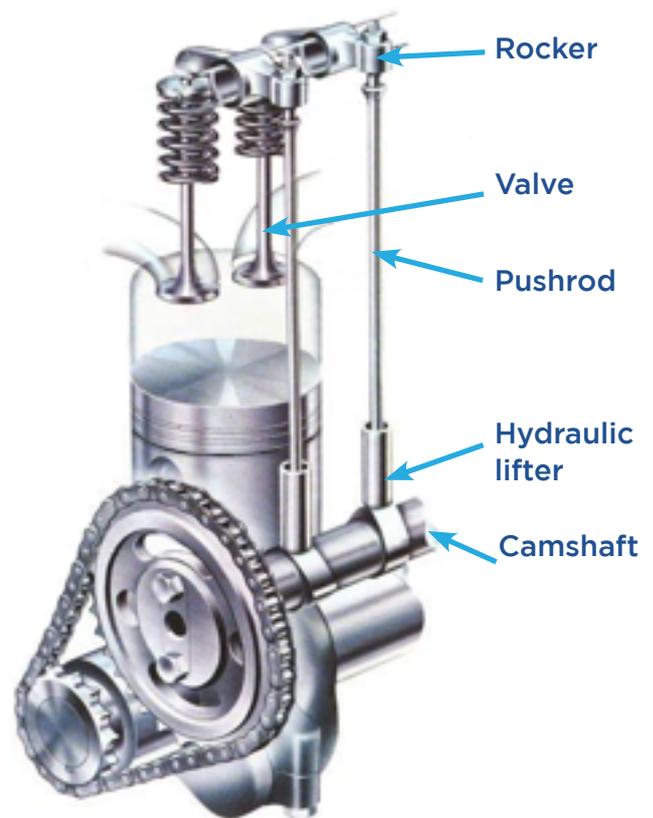
Clearance adjustment procedure between valves and rockers in VAG 1.0 y 1.4 petrol engines.

INTRODUCTION

In these **OHV engines** (Overhead Valve) of VAG group models, the distribution system has valves located in the cylinder head and camshaft and lifters on the engine block being these valves actuated by pushrods.

In this case the **lifters are hydraulic**, therefore, all the clearance that may occur by expansion of the parts or wear among the elements of the distribution and consequent characteristic noise, are automatically compensated by the hydraulic lifter by loading or unloading oil thereof.

Despite having the mentioned hydraulic lifters, on engines described below, **a valve clearance regulation of the rocker arms is required for proper engine operation**. This clearance shall be as specified by the manufacturer; while excessive clearance can cause not be carried out valve opening in time or completely, a lack of this clearance could cause the valves remain open, in both cases leading to an engine malfunction and even major damage.



Concerned engines:

BRAND	C.C	MODEL	ENGINE TYPE
SEAT	992	AROSA	AHT
SKODA	992	FABIA	ATY, ARV, AQV
	1389	OCTAVIA	AMD
	1397	FABIA	ATZ, AME, AZE, AZF, AQW
VOLSKWAGEN	992	LUPO	AHT

DESCRIPTION

To replace the camshaft in these engines, **take off the cylinder head, hydraulic lifters and remove the camshaft** by the side of the block. It is highly recommended to replace both camshaft and lifters to prevent premature wear.

Once replaced both camshaft and hydraulic lifters, always **set the clearance** between the rocker and the valve.

It is also necessary to **make the adjustment** if replacing any other element of the distribution as a rocker, valve guide or spring.

After removing the valve cover, we have full access to the rockers and can proceed to its adjustment following the steps described below.

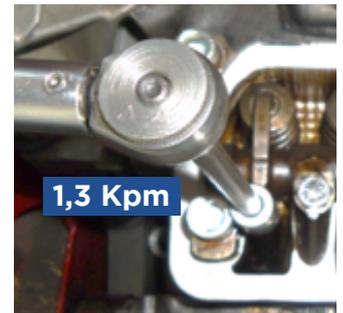
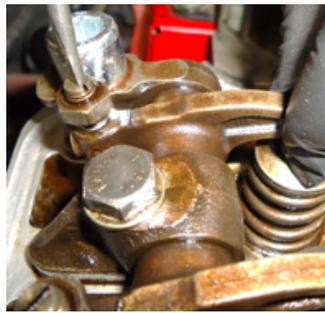
1. Rotate the engine to locate each exhaust valve in its fully open position, and regulate the corresponding valves according to the following table:

Exhaust valve máximum opening	Adjust intake valve	Adjust Exhaust valve
1	3	4
3	4	2
4	2	1
2	1	3



2. Loosen the lock nut to release the rocker arm adjusting bolt and act on it until we get a considerable gap between the rocker and the valve.

4. After removing said clearance between the rocker and the valve, turn the adjustment bolt **2 turns (720 °)** and tighten the locknut to the specified torque.



3. Tighten the bolt again until completely eliminate the clearance between the rocker and the valve.

5. Fit the valve cover by tightening the two nuts to the specified torque of **0.3 Kpm**.

