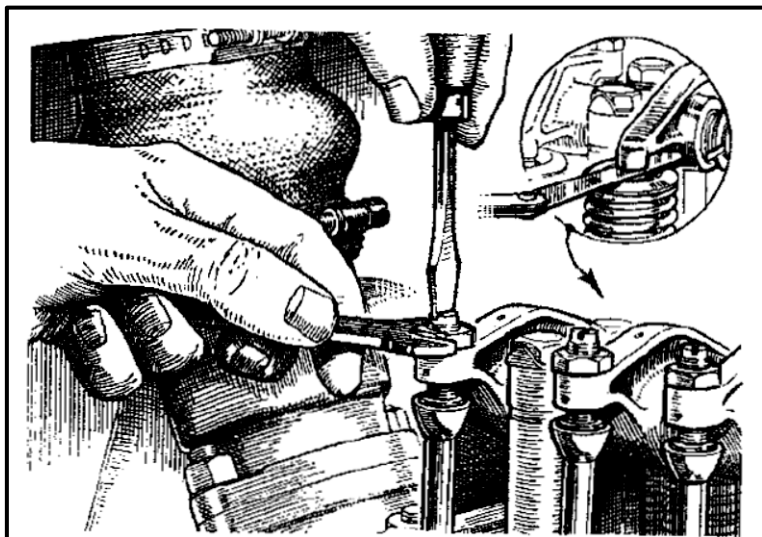


TAPPET ADJUSTMENT – XPAG / XPEG

Lonnie Cook - rev. 29-Apr-2025



Adjust valve clearance by the adjustable screw and locknut above the push rod on each rocker arm. The tappet adjusting screw is released by loosening the hexagon locknut with a spanner, while holding the screw with a screwdriver to prevent rotation.

Set the clearance by rotating the screw while checking the clearance with a feeler gauge between the valve stem and the rocker tip.

Hold the tappet screw in place to prevent rotation and tighten the locknut.

Fully Open	Rocker to Adjust
8	1 (ex)
6	3 (in)
4	5 (ex)
7	2 (in)
1	8 (ex)
3	6 (in)
5	4 (ex)
2	7 (in)



Rotate the engine with a hand crank to position the #8 rocker to fully open valve #8 (down) and adjust clearance on #1 rocker.

Rotate the crank about 1/8 turn to the next "Fully Open" valve in the white column of the chart and adjust the clearance on the rocker in the yellow column. Repeat. Double-check each clearance when finished.

If you miss one of the rockers, then go to the next one on the list. Don't turn the crank backwards. At end, adjust missed rockers.

VALVE CLEARANCE @ Op Temp:

0.019" XPAG to #24115

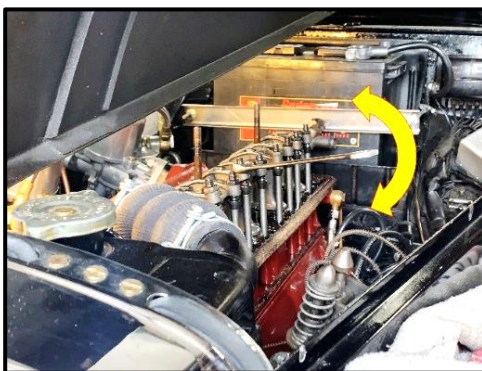
0.012" XPAG from #24116

0.012" All XPEG

> **Add 0.001"** for cold engine - WSM

> *I prefer to add 0.002"*

See cam maker's documentation for replacement cams.



TIP: Hang a wrench on the rocker locknut for the "Fully Open" valve. Rotate the engine until the wrench is at the approximate highest point to indicate when the valve is fully open.

It's better to have too much clearance than too little

DETAILS

Tools Needed

- Engine hand crank, or a 1-1/8" SAE socket and ratchet
- Three flat feeler gauges (remove from set)
 - One at the target clearance
 - One 0.001" thinner than target
 - One 0.001" thicker than target
- Stubby flat blade screwdriver or ratcheting screwdriver that will fully seat into the slot on the adjusting screws of the rockers
- Sparkplug socket and wrench
- 1/4" Whitworth box end wrench (5/16" Whitworth)
- 13mm metric box end wrench (The tappet adjusting screws and nuts are M8-1. The locknuts originally had 5/16" Whitworth heads, but some may have been replaced with 13mm.)



Preliminary

- Disconnect the ground wire from the battery
- Not necessary to remove the bonnet, although it may make the job easier
- Mark the cylinder number on each spark plug wire
- Disconnect wires and remove spark plugs
- Remove the rocker cover
- Gearbox in neutral

Process

- Set the valves while the engine is cold. (Easier). **Add 0.001" or 0.002" to clearance.**
- Rotate the engine with hand crank to the positions in chart on page 1.
- Loosen the lock nut on the target adjuster screw.
- Insert a feeler gauge between the rocker and valve stem to determine the adjustment needed.
- Turn the adjuster screw clockwise to reduce clearance, counterclockwise to increase. A miniscule movement of the adjuster screw will change the clearance appreciably.
- "Go / No-Go" When properly adjusted:
 - The target feeler gauge will fit between rocker and valve stem with a slight drag.
 - A feeler gauge that is 0.001" thinner than target will slip easily.
 - A feeler gauge that is 0.001" larger than target will not fit.
- **It's better to have too much clearance than too little.** Some recommend .001"-.003" wider.
- Tighten the locknut when correct clearance is attained. Do not let the adjustment screw move when tightening the lock nut after setting the clearance. Double check the clearance before going to the next valve. Readjust if needed.
- Double-check clearance again after all valves are set.

Finish

- Replace the spark plugs and wires.
- Replace the rocker cover.
- Attach battery ground
- Start engine. Check for leaks and noises. Drive the car to reach operating temperature. Listen for consistent sound from the valves. There may be less valve clatter after the engine is warm. Loud clatter may indicate an incorrect setting or a loose tip on a push rod. No clatter indicates insufficient valve clearance, which could damage the engine.