

Hino Valve Adjustment

This covers the 4 cylinder adjustment, but the 6 cylinder is completely analogous.

The valve cover is secured with 6 - 12 mm bolts. Picture is shown.

The flywheel cover is located at about the 10 o'clock position on the flywheel (transmission end of the engine). It is an "L" shaped rubber boot, pulls out with finger pressure. This exposes the flywheel with timing marks. There is a picture of the rubber boot attached to the post.

The four cylinder engine has timing marks of "1/4" and "2/3" spaced 180 degrees apart. The crankshaft doesn't know which cylinder is at top dead center (TDC) and firing on a 4 stroke engine, since it makes 2 revolutions each time a cylinder fires. When the #1 cylinder is at TDC, at the beginning of the power-stroke, the # 4 cylinder is also at TDC, having just expelled the spent exhaust gasses, and ready to intake fresh air. Since both pistons are at TDC, and the crankshaft can't tell which is on the power-stroke (firing), they are both marked.

The crank is turned counter-clockwise when viewed from the flywheel, clockwise if you are looking at the belt. I grab the belt manually and turn the crank via the belt. You can put a large wrench on the crank nut at the pulley as well.

The line between the 1 and 4 (or the 2 and 3) serves as the alignment mark for both cylinders. This mark aligns with the bottom of the viewing port (not the very bottom of the "L", rather the bottom that is over the timing marks).

When you have the 1/4 mark aligned, you have to figure out which cylinder is firing. This is pretty easy. You just grab the rocker arms for both cylinders (number 1 is on the belt side and number 4 is on the flywheel side), and give them an up and down shake. If the intake valve and the exhaust valve rocker arms both shake just a little bit, this cylinder is firing. These rocker arms are loose, which indicates that both valves are closed, and this only happens when the cylinder is firing. You may see this described as "valves rocking on cylinder 1." Then you know cylinder 1 piston is at TDC and firing.

The intake rocker arm is on the belt side of the engine, and the exhaust rocker arm is on the fly wheel side for each cylinder.

The adjustment is made by loosening the lock nut (14 mm) and turning the flat-head adjustment screw. This is very easily demonstrated in the picture attached. A feeler gauge is inserted as demonstrated, and when you have the screw properly adjusted, the lock nut is re-tightened.

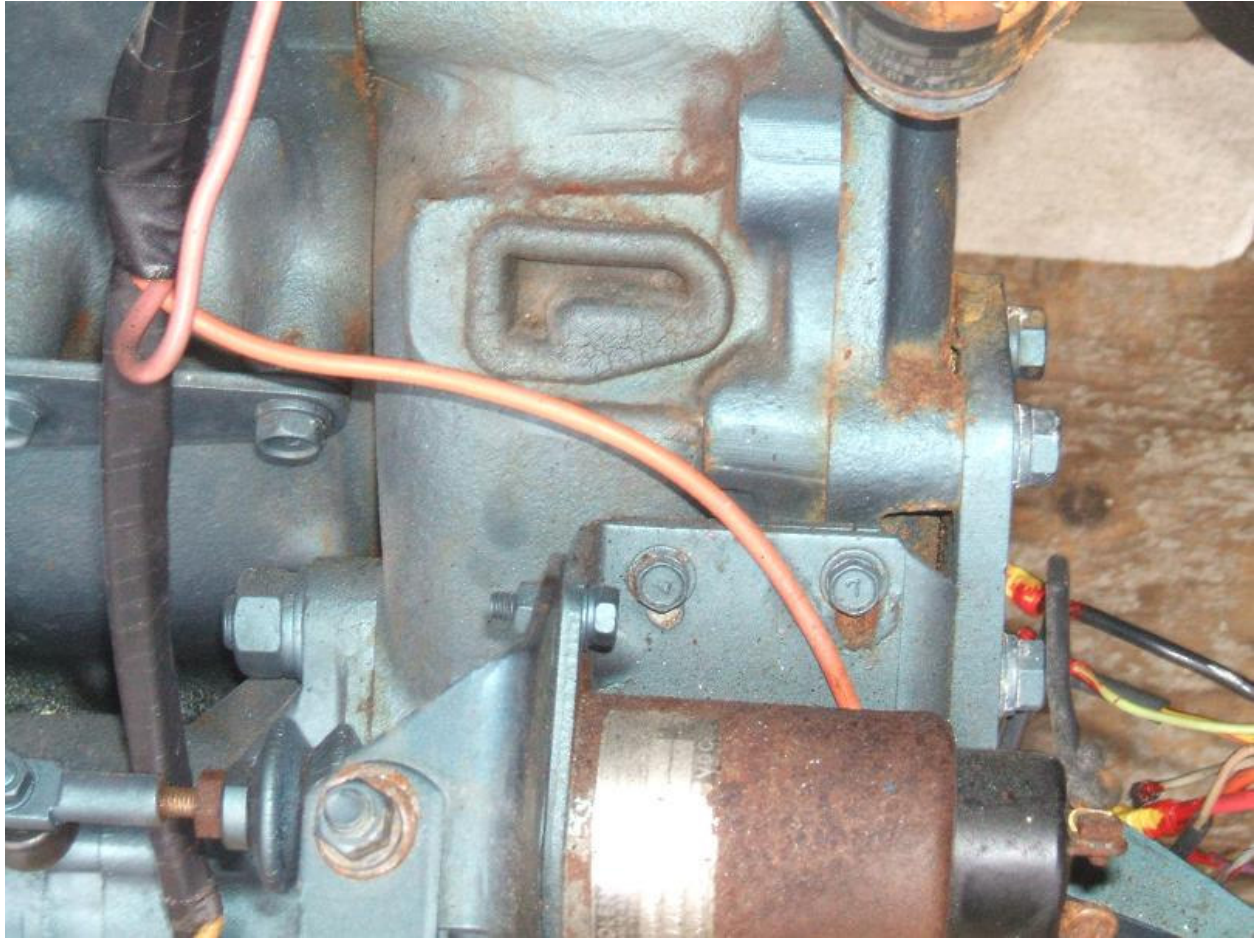
Rotate the crank to the 2/3 mark, repeat above. Rotate to the 1/4 and repeat. When you

get to the 2/3 again, and make the adjustment, you are finished.

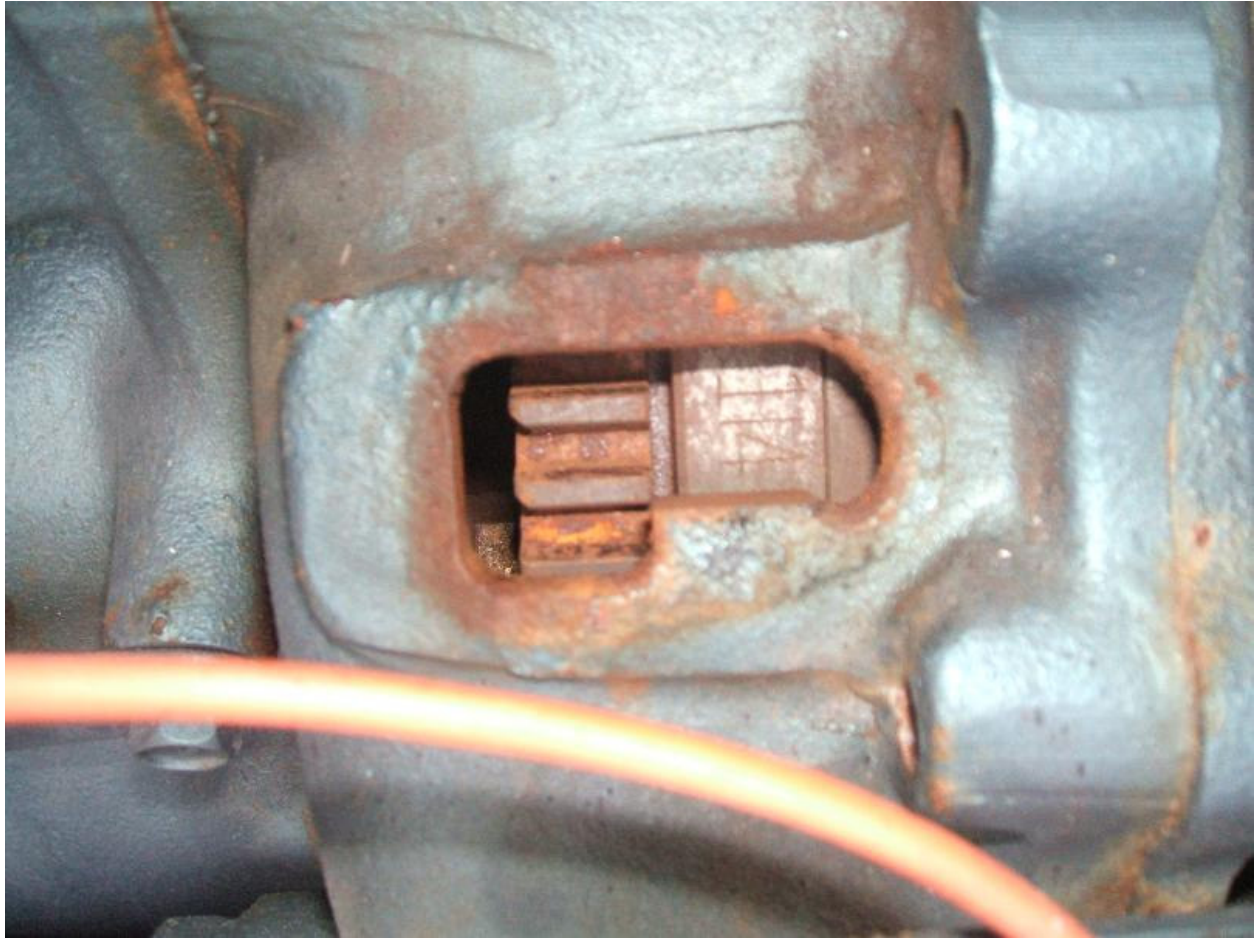
The valve cover gasket is reusable.



Valve Cover



Timing Cover



Timing Mark



Adjusting Valves