

477cc cylinder insertion instructions



This side pointing to timing chain.

Circlip will be IN the piston, not next to it

There is a video on youtube showing the process how to exchange a cylinder in a Himalayan. On YouTube search for “**Royal Enfield Himalayan Engine Upgrade to 477cc**” or copy the link: <https://www.youtube.com/watch?v=PPXUHCBhJU&t=1639s>

Case 1: The rings are already installed in the piston (piston is hard to move in the cylinder). Make sure in the process of inserting the new cylinder in the engine body the piston is **NOT REMOVED** from the cylinder.

The rings are put in a specific sequence and angle towards each other which should not be disturbed by removing and then re-inserting the piston. Especially the oil ring is very delicate.

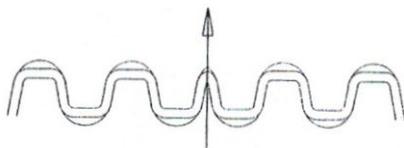
To orient the piston correctly observe that the piston pin circlip is already installed on the left side, the timing chain side.

For the other side of the piston there is an additional pin circlip packed with the gaskets.

The procedure is almost Plug and Play. After you have removed the old piston turn the engine to bottom dead center and gently move the connecting rod upwards, then mount the new piston (without turning it), then fit the new barrel into the case opening.

Case 2: You removed the piston from the barrel or you received the rings seperately (in this case the piston moves easily in the cylinder):

The oil ring Spacer must be put in first with the ends pointing upwards, and situated at about 2 O'clock. This is followed by the bottom scraper ring which goes in with the gap at 8 O'clock, lastly the top scraper ring with the gap at 4 O'clock.



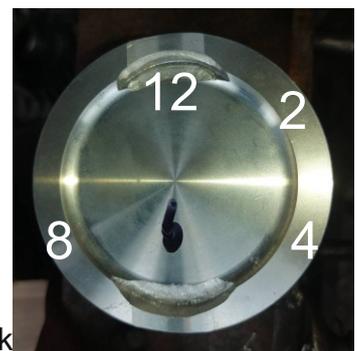
CAUTION

WHEN INSTALLING FLEX-VENT OIL RING EXPANDER ON PISTON WITH DRAIN SLOTS ON EITHER SIDE OF THE PIN HOLE WHICH ARE CUT THROUGH THE LOWER SIDE OF THE OIL RING GROOVE THE EXPANDER **MUST** BE INSTALLED WITH THE POINTS UP AS ILLUSTRATED, AND AWAY FROM DRAIN HOLES.

12 O'clock orientation would be the cut away for the exhaust valve, the slightly smaller cut away.

The ring set should move freely (shake it next to your ear and listen to the rings moving).

We use various ring sets. Most have the sequence printed on their packaging. If they are lose in a plastic bag then the shiny one goes on top, the equally thick black one beneath that and the oil ring (3 layered, the spirally part in the middle) at the bottom.



Slightly smaller cut away - exhaust side, 12 o'clock