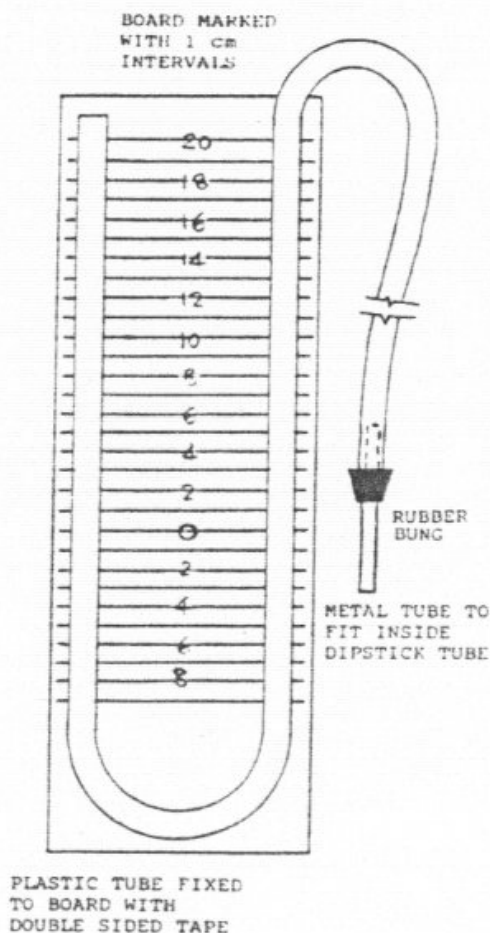


JOHN NASH on Making A Manometer FOR CHECKING THE CITROËN CRANKCASE VACUUM

IF YOU HAD THE problem of your engine's life-blood ending up on the wrong of the crankcase? You have? Then it's about time you checked that the breather/oil filler is working properly. Inside this component there are two types of valve, both made of a flexible rubber type of material. After a time, this material loses some of its flexibility. One valve is in the form of a tube with slots cut into its length which open when the crankcase pressure increases. This lets the oil-laden fumes escape, thus depositing the oil into the lower part of the breather where it returns to the engine via the dip-stick tube. The rest of the fumes under pressure push up the other flap valve, which is situated level with the outside flange, and then vent back to the air filter. Any excess oil in these fumes is drawn back into the engine and burnt during the combustion stage. Because the engine is designed to run with a negative crankcase pressure (that is, with a vacuum inside it) any malfunction of the breather will upset this arrangement. The way to test what vacuum, if any, you have is to make a simple manometer as shown below, and connect it to the dipstick tube.



1. Fill the tube with water to the zero mark.
2. With the engine idling, take out the oil level dipstick and gently insert the metal tube. Be careful that the water is not sucked out of the tube and into the engine.
3. Gently accelerate the engine to stabilise the reading.
4. Note the difference in levels. At idling the maximum difference should be 5cm. If it is less, change the breather.