Checking b#ll bearings,whether in,or out of the engine,new or old,should be done after a complete cleaning with a solvent. Make sure all dirt, hardened oil,and any other gunk,is removed,and then give the bearing an lubrication with a light machine oil before doing the following check. First of all,the most used method is incorrect,i.e.,holding the inner race with the thumb,and finger,and spinning the bearing. With this method, the bearing is not preloaded,and most new bearings checked with this method would fail. Most ball bearings will feel rough done this way,as not preloading them lets the balls slide,instead of roll. The correct way is ti hold the inner race with one hand,and use the other hand to hold,and apply pressure to the outer ,just like the crankshaft would if the engine were running. Now turn the bearing,and if any rough spots,bumps, etc. are felt,the bearing is bad. This can also be done with the bearing in the engine,as the case will hold the outer race,while you apply pressure to the inner race.

Ever have problems with the metric conversion of your engine displacment? What is the 3.5cc,or 6.5cc engine in cubic inches? Just remember the number 6. Multiplying the cubic centimeter displacement by 6,will give the conversion to cubic inches.i.e.- 3.5cc multiplied by 6 =.21 cu.ins, 6.5cc =.39, 10cc =.60 cu.ins. To convert cubic inches to cubic centimeters, divide the displacement in cu.ins. by 6,i.e.- .60 divided by 6 =10cc, .45 divided by 6 =7.5cc,etc. Yes,I know,that the decimal is in the wrong place in the answers,but if you have a 3.5 in your hand,you know that it is not a 21.0 cu.in. engine. For you perfectionests out there,use .06 to convert cc to c.i.,or visa-versa OK?

If your ABC has worn out,and your to cheap to rebuild it,here is a way to get a little more use out of it. Preheat your oven to 600 degrees,and put the piston inside for one hour,them remove it,and drop it into cold water. The piston will usually grow about .0002"-.0003". This usually works if the manufacturer has not heat treated the piston already,and many times it will work anyway. Some brands will grow more then others. Aluminum hardens with age,but can be speeded up with heat treating,instead of letting it set for several months.

If a lapped engine(NOT AN ABC) bubbles a little when turned over by hand, it is broken in,but excessive bubbling indicates a worn out piston/sleeve. If on the other hand,it does not bubble at all,then it needs more running in time,as it is not broken in enough. When broken in,a lapped(NOT AN-ABC) engine piston should be a slight push fit,through the sleeve,and should never be a tight fit,even when new,at the bottom(skirt)of the sleeve.