

TECH



TECH INFORMATION FROM CLEVITE ENGINE PARTS

TB-2019

Issued: March 4, 2001

Page: 1 of 1

HEAVY DUTY CAM BEARING MATERIALS FOR VARIOUS APPLICATIONS

In the last decade or so engine development has increased dramatically. Each time an existing engine is revised or a new engine is developed, it pushes the limits of what its predecessor could produce both in horsepower and torque as well as fuel efficiency. With these gains, comes an increased load on the internal parts of these engines. One of these parts that are continually asked to perform under greater and greater pressures is the cam bearing. In engine configurations such as V6's and high RPM 4 cylinders, the cam bearing is a vital link along the path of the engines oiling system. If a cam bearing wears out prematurely the engine loses some of its oil pressure, which we all know can lead to premature engine failure. Other problems, which can be caused by premature cam bearing wear, are excessive cam lobe runout, improper timing, and generally poor running conditions. This is where strength and durability become key issues. This why in most applications, the O.E manufacturers have turned to higher performing cam bearing materials. Traditional babbitt can only withstand up to 1800 psi. Clevite77s' AL-3 material can withstand up to 5000 psi. Quite a difference. When trying to adapt babbitt to an application that requires a more durable material, extra oil grooves are needed on the outside diameter of the bearing itself to help get oil to the rest of the engine. This only addresses the oil starvation symptom inherent to the real problem of premature wear. All of the other symptoms that were listed above still occur with the right material for the job, such as Clevite77's AL-3, these extra oil grooves aren't needed at all. In fact this gives more bearing contact area to the block to help in transferring heat away from these parts and prolonging bearing and engine life. Remember, when strength and durability is part of the question, Clevite77 is the answer.

For further information contact:



Clevite Engine Parts Division • 1350 Eisenhower Place • Ann Arbor, Michigan 48108-3388 U.S.A.