## Improving the lubrication system on twins By Jorg Henze

I have had a couple of calls recently from members with lubrication problems on their twin engines; some simply due to the ravages of time and use, some just the inherent deficiencies of the system and the original pumps.

Casting about among past copies of Jampot, I unearthed, in Jampot 523 (December '96)what at the time seemed to me to be a very worthwhile improvement and one which will stand repeating for the benefit of new members or those who would like their memories refreshed.

As Chris Read commented at the time, 'Jorg Henze of Regensburg has mated a 'Morgo' rotary oil pump, designed for a Triumph unit twin to his AJS in superb German engineering style'

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Jorg wrote:-

The oil return pump on my M20 was not able to maintain a 'dry' crankcase and blue smoke would emanate from the exhaust after standing at traffic lights and when running at low revs. Wet sumping also indicated that the pumps were out of order.

I considered that the 'Morgo' rotary oil pump designed for Triumph engines might be fitted to the AMC twin to provide more efficient operation than the original unit and , since the Triumph and AMC twins both use a camshaft drive process, I felt that there should not be any great difficulty in matching the Morgo to the AJS.

I bought a high-output Morgo pump and produced a wooden model of the mount necessary to match the pump to the engine, after sorting out which oil drillings of the pump were to be mated to their counterparts on the engine, whilst ensuring that neither the pump nor the engine itself were modified in any way.

After several attempts, the optimised mounting position was for the pump to be driven by the exhaust camshaft, located on an adapter (see photo). This position ensures that the timing cover can be fitted without interference from the new pump installation, except for a small amount of metal that has to be milled off the inside of the cover.

When running, the pump produces a good delivery pressure and a quick look inside the oil tank confirms that it is scavenging more efficiently than the original. No more blue smoke!

The construction of the two plates which bolt together to form the pump mount are somewhat complex, but I can provide further detail if anyone is interested'

Jorg Henze.

(If anybody wants to attempt to replicate Jorg's successful adaption, he was (in 1996) available by phone on +39 941 379395)

