Options to pressure feed the crankshaft of an 11.9

Written by Mark at Oct 11, 2017 9:38 pm

I am looking at options to modify the engine lubrication on my 1923 11.9. Currently there is a plunger pump that drips oil into the two main bearings and onto the timing chains. The big ends are reliant on splash lubrication. This is quite effective but the risk of oil starvation to the front big ends on long inclines always remains.

There are a number of successful modifications of these engines which involves drilling oil ways into the crank to supply the cranks bearing journals. The oil supply is then enhanced through upgrading the oil pump with and Austin 7 unit on the later 12/24 and making a new double acting plunger pump for the simpler 11.9 engine.

My question is whether anyone has any experience of using a remote 12V gear driven oil pump to pressurise the lubrication system on an early vintage engine? These pumps are readily available for use with turbo chargers etc. If using such a pump is feasible they are small enough to be positioned discretely and plumbed into existing pick up and supply pipes.

As usual any advice gratefully received.

Regards
Mark

Re: Options to pressure feed the crankshaft of an 11.9

Written by Colin M34 at Oct 12, 2017 9:59 am

HI Mark

This sounds like a great idea, discretely tucked away. Why you could even have a hidden switch for boost when ascending steep hills.

I also very much like the idea of making the reciprocating oil pump double acting. It might be worth looking at model engineering catalogues as there may be castings already available.

M34

Re: Options to pressure feed the crankshaft of an 11.9

Written by Formhalls Vintage and Racing at Oct 17, 2017 1:10 pm

Hi Mark,

A 12 V pump is feasible however we suggest you run an alternator otherwise the battery may go flat because the dyno can’t cope! If you do go ahead with the conversion ensure you have a reliable oil light on the dash in case there are problems. You also may want to consider a better oil seal systems as extra pressure may cause leaks.

Kind Regards
The Formhalls Vintage and Racing Team

Re: Options to pressure feed the crankshaft of an 11.9

Written by Colin M34 at Oct 18, 2017 1:28 pm

Can Formhalls drill oilways in a 2-bearing crank?

Good point about the power needed for an electric pump.

M34

Re: Options to pressure feed the crankshaft of an 11.9

Written by Formhalls Vintage and Racing at Oct 20, 2017 9:20 am

Hi Colin,

It would depend on the hardness of the crankshaft we were working with; we would be happy to inspect the crankshaft and advise after inspection.

Kind Regards
The Formhalls Vintage and Racing team.

Re: Options to pressure feed the crankshaft of an 11.9

Written by Julian at Feb 03, 2022 8:30 am

Hi Mark,
How are your plans for the oil system progressing?

Pump wise I would personally stay clear of an electric unit, the single most unreliable think on any old car is the electrics as we all have found at some point. Do not power your heart with a batery unless its a pacemaker and you have no choice.

A simple rotary pump is available from a mass of places, modern race engines use lovely little pumps that can be fitted nicely inside any engine if thought about carefully, we do this sort of modification regularly and even make rotary pumps for some aplications.
Crank drilling can be done without too much worries, even if it needs to be spark erroded its not a big problem nowadays.

Give me a call on +32 489 712608 any time and lets chat, I am sure we can send you down a good route.

Best regards,
Jules
