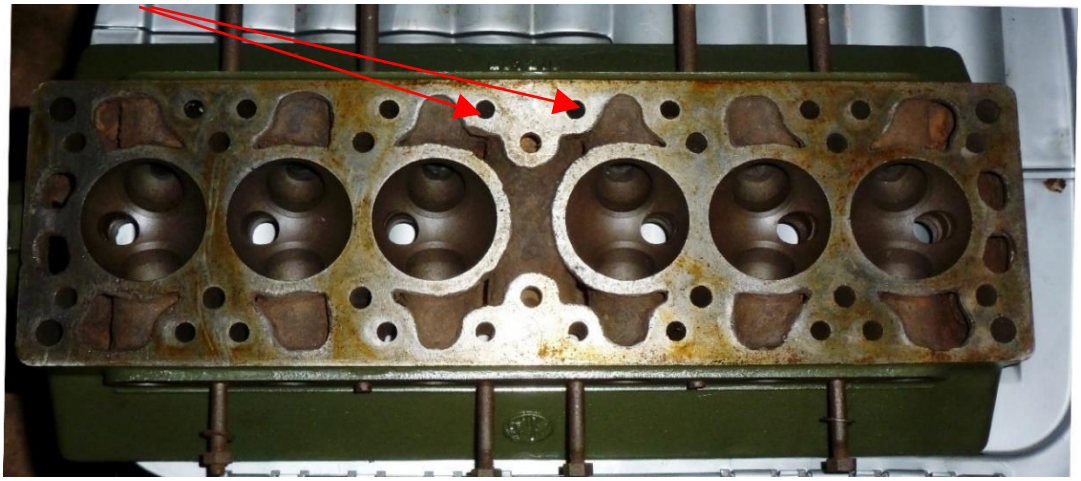
Six Cylinder Heads & Blocks Composite

Cylinder Heads

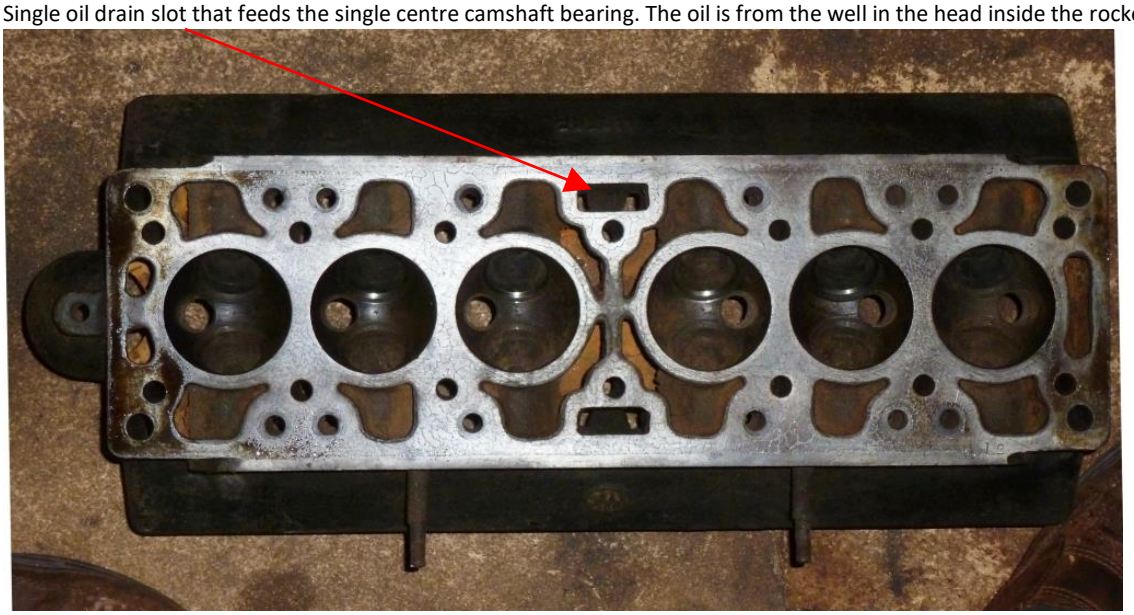
Type1 14hp L – Series Cylinder Head

Oil drain holes in the cylinder head that feed the twin centre camshaft bearings.



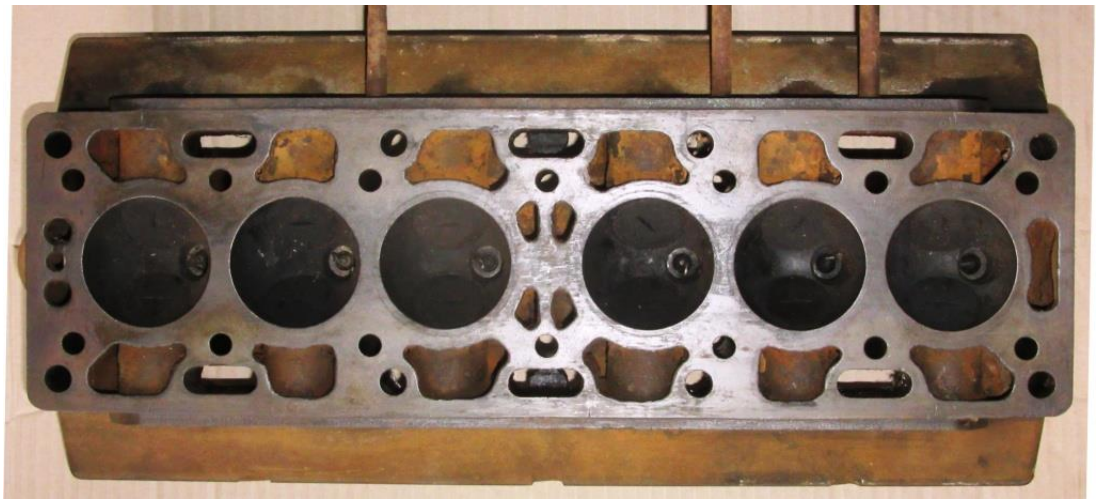
Type2A 14hp L- Series Cylinder Head

Single oil drain slot that feeds the single centre camshaft bearing. The oil is from the well in the head inside the rocker boxes.



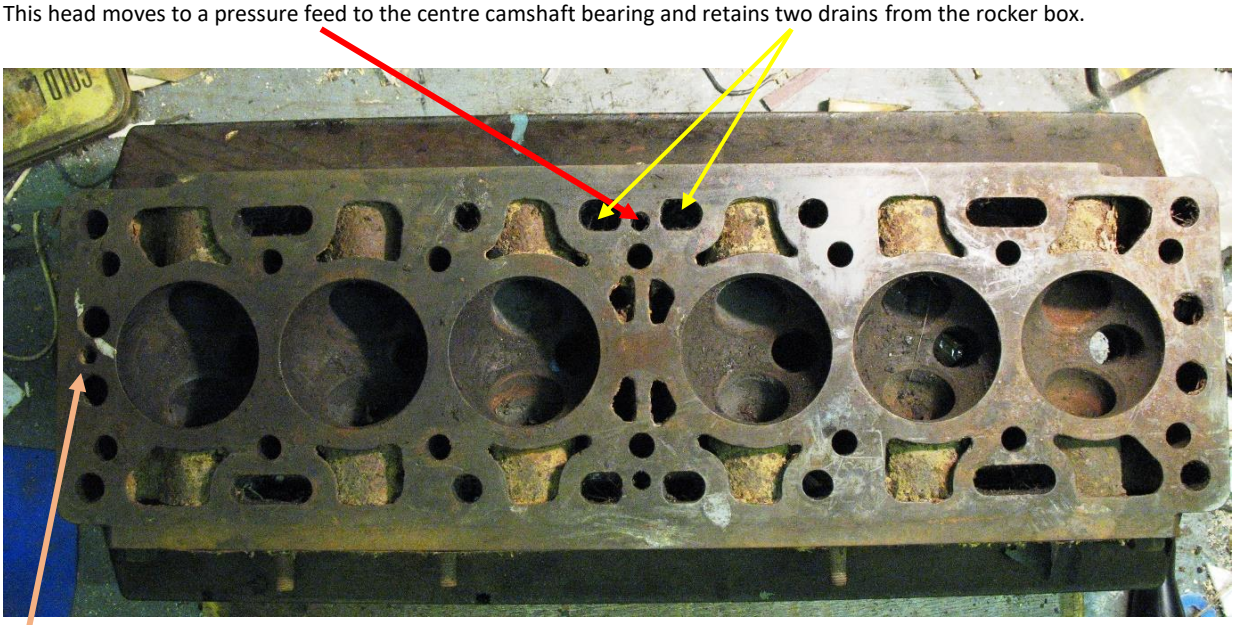
Type2B 14hp L- Series Cylinder Head

Like the above but with a round end to the slot. On this view, the lighting allows the two slots either side of the centre rocker box stud to be more obvious.



Type3 14hp L- Series Cylinder Head

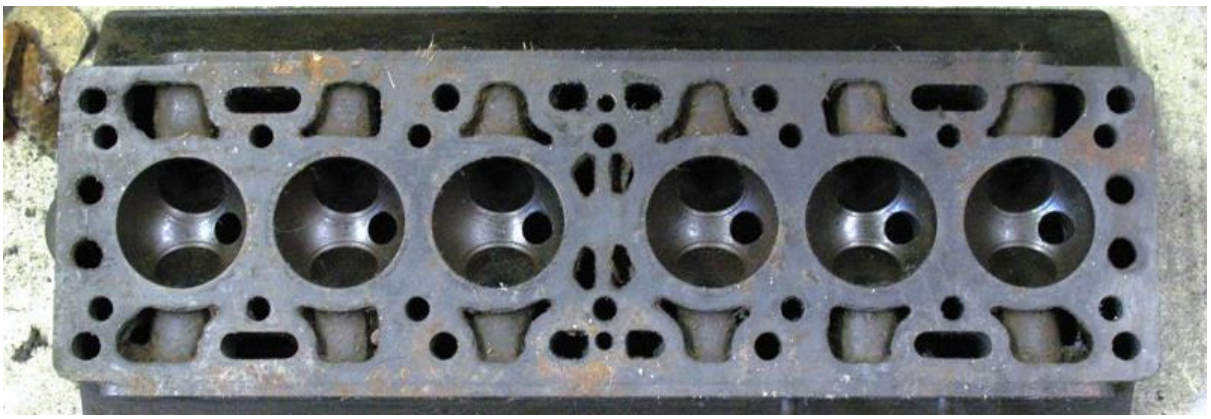
This head moves to a pressure feed to the centre camshaft bearing and retains two drains from the rocker box.



Thread for stud for cast alloy water outlet.

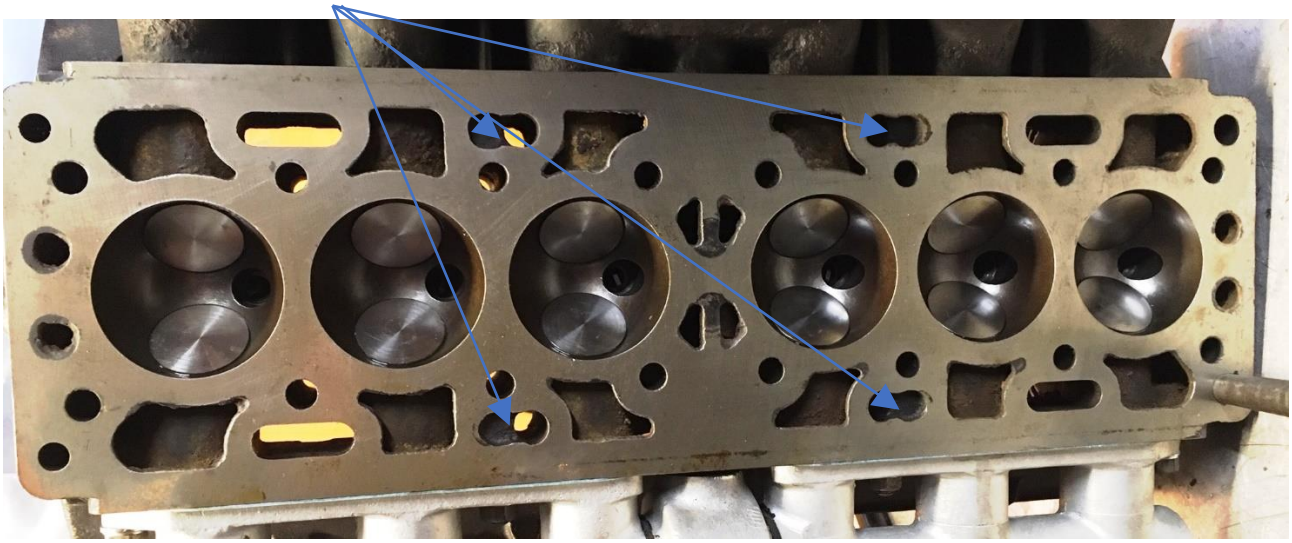
14 hp T series Cylinder Head

Same head face pattern as the Type 3 above but with no tapped hole for alloy water outlet as these head use the screwed in pattern of water outlet.



15/6 Cylinder Head

On these cylinder heads there is no centre drain in the head. The oil is drained out in part via the pushrod slots BUT it is vital that the slots in the head face are maintained if the head is skimmed as there is an oil port in the block adjacent to the pushrod hole that requires a feed. The slots in question are shown in the following illustration.



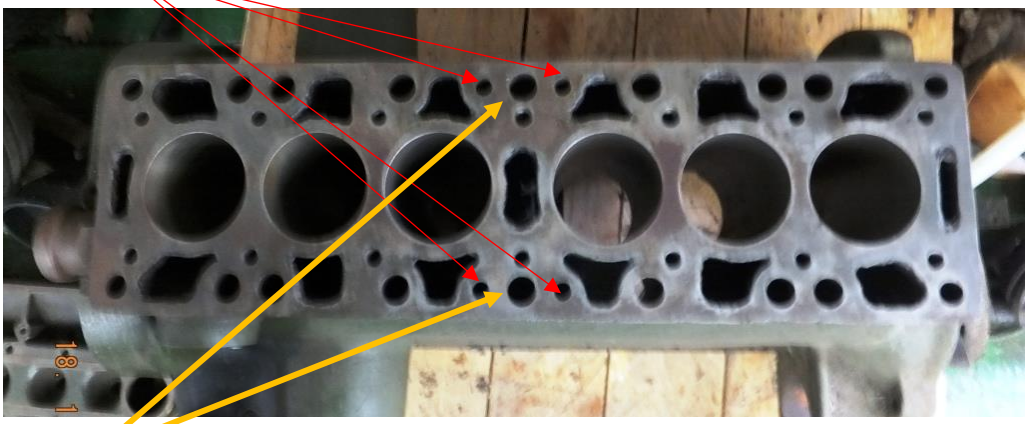
Cylinder Head Footnotes

1. Note, the early L series heads have the 3 front spark plugs biased differently to the rear three, whereas later L series, the T series and 15/6 always have them biased towards the rear of the engine.
2. As with all Riley engines, there are numerous holes in the top face of the block (and the mating face of the head). A number of these holes are the result of the need to support the cores used in the casting process and they were never intended to perform any other purpose. Like many manufacturers, Riley used the apertures in the gasket on each model to control water and oil flow across the head/block interface.
3. Currently the L series is known to have three distinct variants, the first with two separated centre camshaft bearings in the middle of each camshaft and the later all with a single centre camshaft bearing.
4. The T Series picture is covered in some detail in the parts books, which list the Mark 3, 4, 5 14hp block variants and in addition the 12 hp block variants. It is unclear if the Mk 1 & 2 are further variants of the T series or refer to the latter two versions of the L Series 14 hp.
5. The 15/6 has several differences, the most noticeable being the extra pair of head studs taking the count from 14 to 16 and the revised oil flow from around the centre of the head, and the revised head oil drain system.

Blocks

Type 1 L series Block with twin centre camshaft bearings

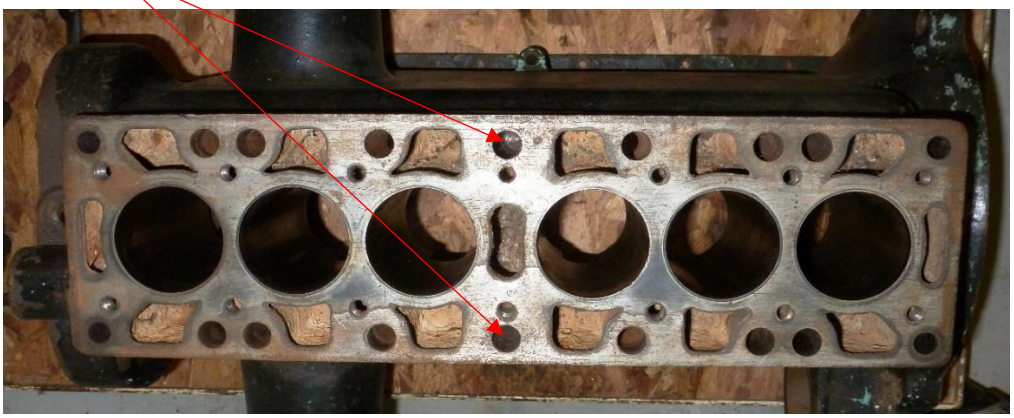
Oil drain holes to feed oil to two camshaft bearings from head



These holes are drilled and come through to the inside of the block. There is NO matching hole in the head.

Type 2 L series Block with single centre camshaft bearing

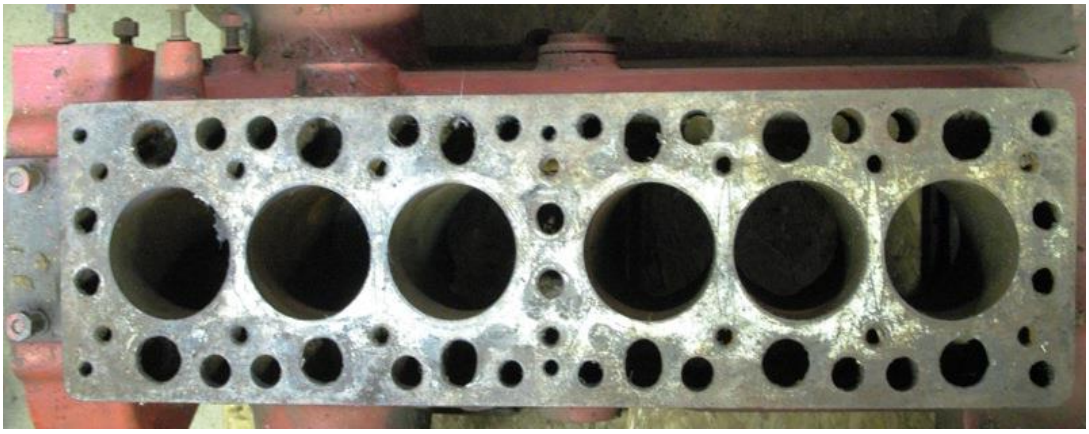
Oil drain Holes to feed oil to one centre camshaft bearings from head



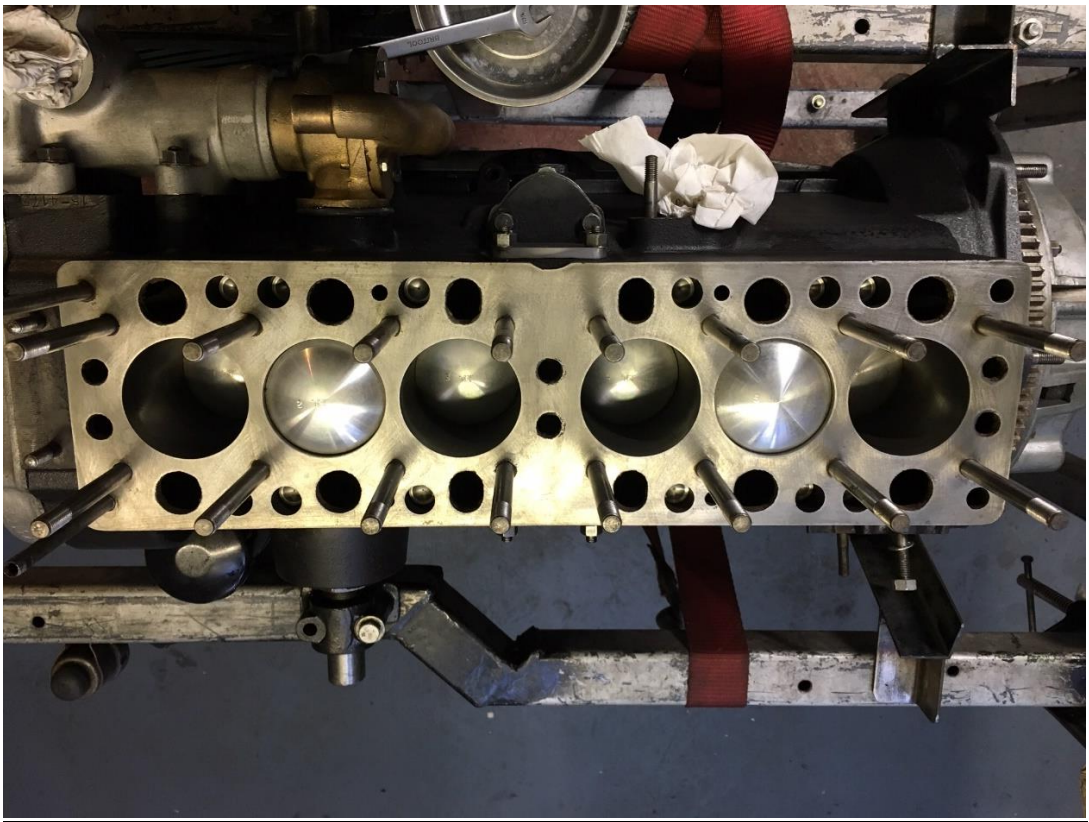
Type 3 L series Block – L991

Type 3 L series Block – L1107

T series Block

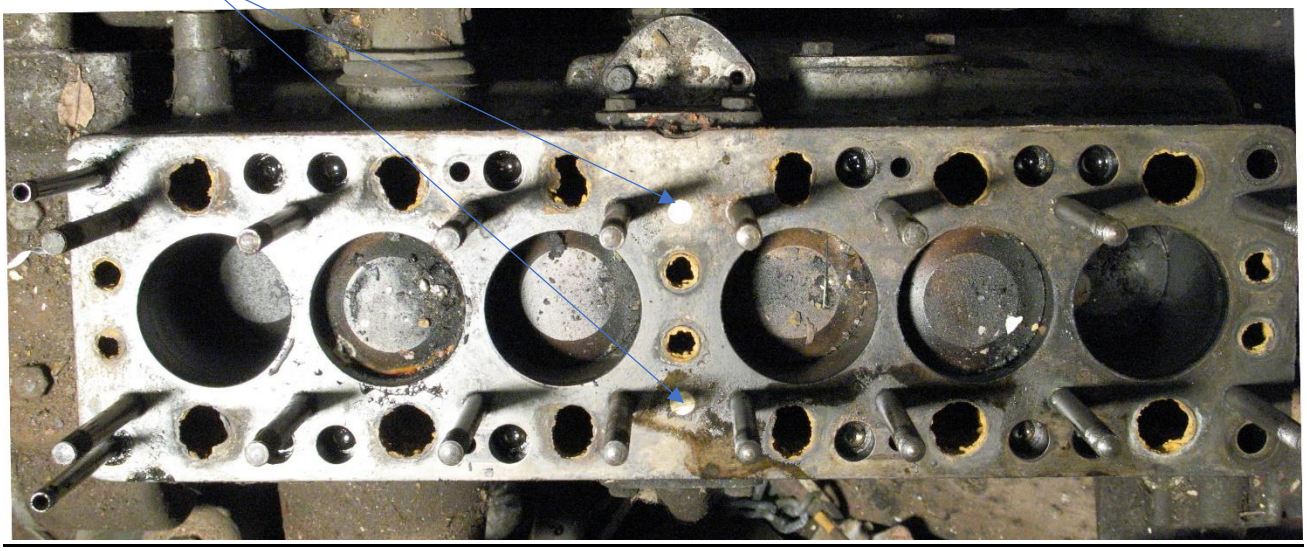


15/6 Block



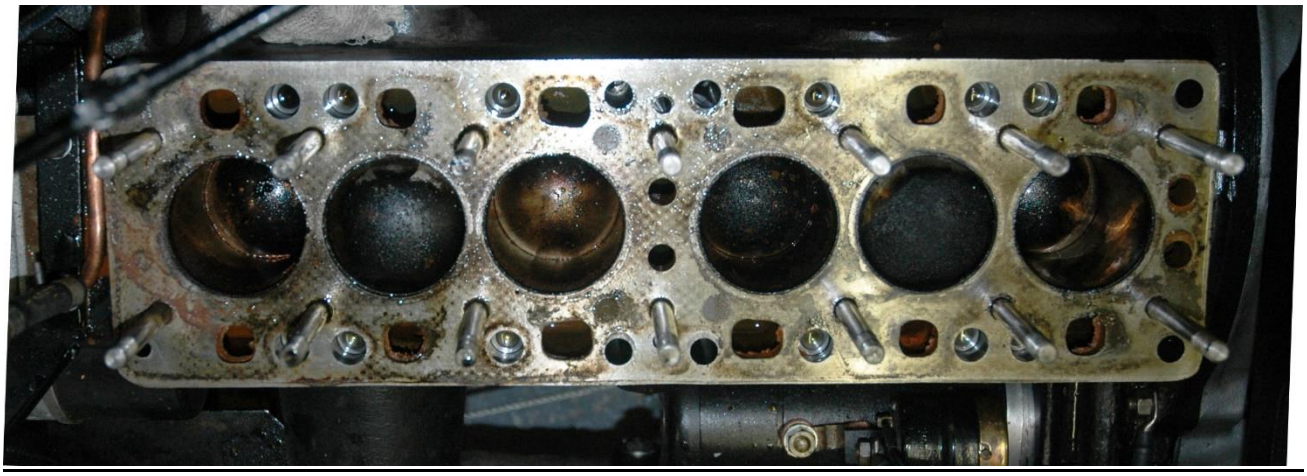
The Riley continuation block – This allowed for the repair of a variety of blocks when centre main cooling damage was incurred.

This block is configured for 15/6 use with 16 head studs but note the stopped off holes for the earlier 14 stud configuration.



The Fiennes replacement 6 - cylinder block

Configured for a T series engine



Footnotes

1. This is what has been collated by January 2022. More may become known as often is the case in the world of Riley.
2. As with all Riley engines, there are numerous holes in the top face of the block (and the mating face of the head). A number of these holes are the result of the need to support the cores used in the casting process and they were never intended to perform any other purpose. Like many manufacturers, Riley used the apertures in the gasket on each model to control water and oil flow across the head/block interface.
3. Currently the L series is known to have three/four variants, the earliest with two separated centre camshaft bearings in the middle of each camshaft and the later with a single bearing.
4. The T Series picture is covered in some detail in the parts books, which list the Mark 3, 4, 5 14hp block variants and in addition the 12 hp block variants. It is unclear if the Mk 1 & 2 are further variants of the T series or refer to the two version of the L Series 14 hp.

5. The 15/6 has several differences, the most noticeable being the extra pair of head studs taking the count from 14 to 16.
6. The continuation block was introduced to allow the repair of the range of blocks when frost damage occurred.
7. The Fiennes block is a recent addition.