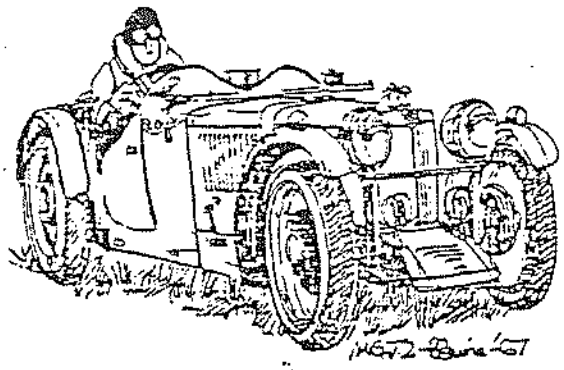

J2 TECHNICAL ARTICLE

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MODIFICATION OF THE CAMSHAFT OIL GAUGE

The following is not original equipment and it is not a factory modification. It is just a very interesting piece of owner engineering. If you like gauges and if you do not care if your car is original or not, then this may be just what you want.

CAMSHAFT OIL GAUGE MODIFICATION ON YOUR J TYPE

Many J type owners will have noticed that some J type heads possess an un-machined boss on the side directly opposite the restrictor pin. This boss, when machined can provide 3/5LBS PSI" to an oil gauge.
It is also an ideal lubrication point for a supercharger.

Your first step is to strip the cylinder head and clean it thoroughly, then with a hammer and screwdriver remove the core plug at the front of the head. This can be done by piercing the centre of the plug and levering it out. On no account should it be tackled around the edges, as this could damage the seating, and this would cause problems when fitting a new one.

With the plug removed you can see (with the aid of a strong light) if the boss follows through into the water chamber and on to the centre section of metal which surrounds the vertical drive unit.

The this stage a few measurements should be taken. This is to be sure that the outer boss lines up with the inner boss. (see fig 1). If this seems to be alright you can begin the machining. Set the head level against an angle plate and clamp to the bed of a vertical milling machine. Take a 1/16" skim of the face of the boss. Now move the head complete with angle-plate to a radial drill and clamp to the bed. Check that the head is level by running the point of a scribbing along the top edges of the valve guides. Now centre pop and drill an 1/8" dia. hole down through the centre of the boss until it breaks into the vertical drive bore. Now drill an 11/32" dia. hole 7/16" deep, and tap 1/8" B.S.P. using a centre in the drill to steady the tap.

You will notice that the 1/8" dia. hole has broken through into a recess which runs around the bore of the vertical brive housing. Between the two stud holes and directly behind the bore lies the oil feed hole. (Fig. 6 Page 46 Blower).

The next stage is to drill an 1/8" dia. hole from the recess to the cam oil feed hole. (See Fig. 2). This job will have to be done with an ordinary old fashioned hand drill. Check the depth of the oil feed hole and the depth of the lower step of the rotess. You will find that the oil hole is 1¼" deep (if not, it is quite safe to drill it to this depth). Centre pop in the corner of the recess making sure that you are on the centre line of the head and oil feed hole, and drill until you break into the cam feed hole. Now make sure that all metal chippings are cleaned out and then replace the bearing sleeve, this as you know should be a snug fit.

When the oil feeds in past the restrictor pin dropping to 3/5 LBS.P.S.I. it will flood the gallery now formed by the sleeve and recess. I suggest fitting an 1/8" B.S.P. oil tap to the boss, the same type that is fitted to the oil outlet at the offside rear of the J type block.

When fitting the new core plug make sure that the seating is clean and use a little self hardening jointing compound.

When fully assembled and on the road you will be sure that your cam gear is getting the correct lubrication by a quick glance at your oil gauge. By the way, you can get a 2" dia. 0/10 LBS. oil gauge from any Austin 7.

NIGEL WATTS.

Fig.1

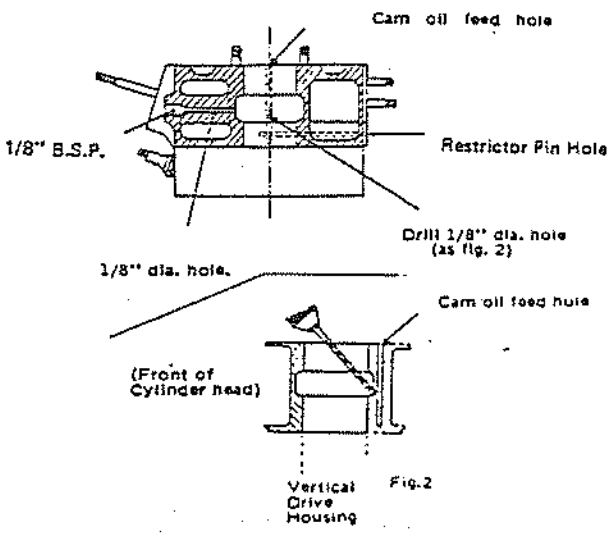

Fig.2