

## GUY BROAD - WINTER 2011 NEWSLETTER



I know some of you reading this probably laugh when I talk about the UK winter weather and the doom and gloom that snow and icy roads bring. Perhaps you are reading this in your T-shirt and shorts in the middle of the Australian summer or somewhere else where such scenes are only found on Christmas cards. If so all I can say is - lucky you! But to add to your amusement, I am going to talk a little bit about the season us northern people have to endure for a little while yet.

Who knows what the next few months may bring in terms of weather but there is no doubt that the European and North American winters have become far more severe in recent years. In the last newsletter, I talked about laying up your car for winter but I know there are plenty of you who keep your car on the road all year round. I have also had some questions from owners regarding the use of winter tyres. Few of us, in the UK at least, had ever heard about them until recently. They were something the Swiss and Swedes put on their cars each year but of little interest here; that was until we had some heavy snow falls and the country ground to a halt. I get a few enquiries about their suitability but in most cases there is no point in changing your tyres on old XKs because firstly you can't get suitable tyres, secondly you don't have the same grip problems that modern tyres do and thirdly there are not many who will venture out with their XK in such conditions. It is the wide modern tires that are particularly bad in such conditions and if you have a modern Jaguar or any other high performance car then you could think seriously about buying a spare set of wheels and winter tyres for them.

However if you are driving in Germany this winter, perhaps on a winter rally, things are different. On the 4th December 2010, the Germans introduced new regulations regarding winter tyre requirements. These new laws apply to all vehicles using roads in Germany, including those registered in other countries and irrespective of age. It is now prohibited to use summer tyres in Germany during winter weather conditions, which include black ice, snow, ice, slush and hoarfrost. German law specifies that such tyres must be winter tyres or all season tyres designed for use in wintry conditions; that is tyres marked 'M+S' or similar. Anyone who drives on summer tyres in winter conditions faces a fine of €40. If they obstruct traffic, the fine is €80 and they may be prevented from continuing their journey unless the tyres are changed or the weather conditions improve. There are also points to go on licences. The ADAC, the main German motoring organisation, has a Q&A on its website about the effects of this law on 'oldtimers', as they call old cars. In the past the ADAC has been active in supporting exemptions for new legislation that affects old cars but there seems to be no sympathy this time. Herr Burkhardt, the Vice President Technical, explains that all vehicles are covered by the law and even advises using public transport rather than old cars in winter! My point though is that if you are going to be driving in Germany in the winter be aware of the new law.

## **CHRISTMAS GOODIES**

Depending on when you read this, you may not yet have stopped dropping hints about what you would really like for Christmas. I gave a few suggestions in the last Newsletter for items you might like to put on your Christmas list so if it's not too late, think about something for the car - far better than a pair of socks, a tie or bottle of Old Spice! Download our **Catalogue** now.

Our large format thirty-page colour Selection Catalogue and our XK Engine Catalogue cover a huge range of enhancements and upgrades. Alternatively, go to our downloads section.

To order a catalogue, tel: **+44 (0) 1676 541980**

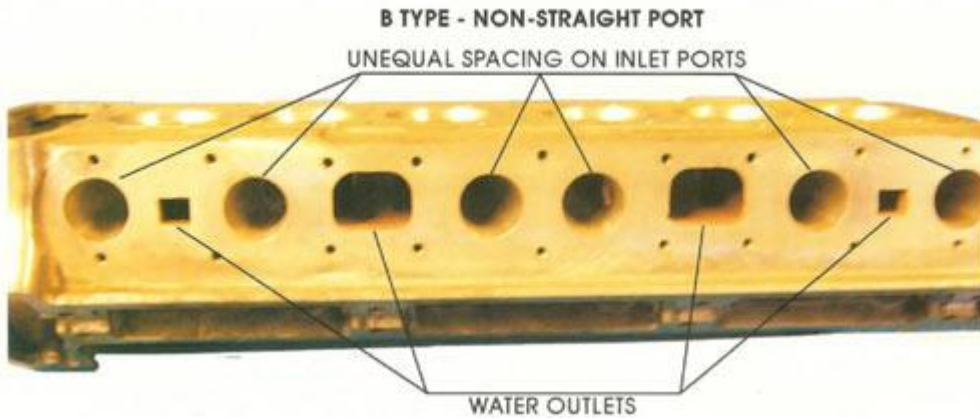
## **BROAD REPORTS: HEADING FOR TROUBLE**

In the last Newsletter, I told you about some of the problems in correctly identifying second hand parts, in particular suspension components. That led me to think about the enquiries we get from customers about second hand cylinder heads - particularly with regard to 'straight port' heads. So I thought this time we could have a look at identifying the various heads suitable for XKs; how you can instantly tell a straight port from a non-straight port cylinder head and how many variations are there of heads and manifolds.

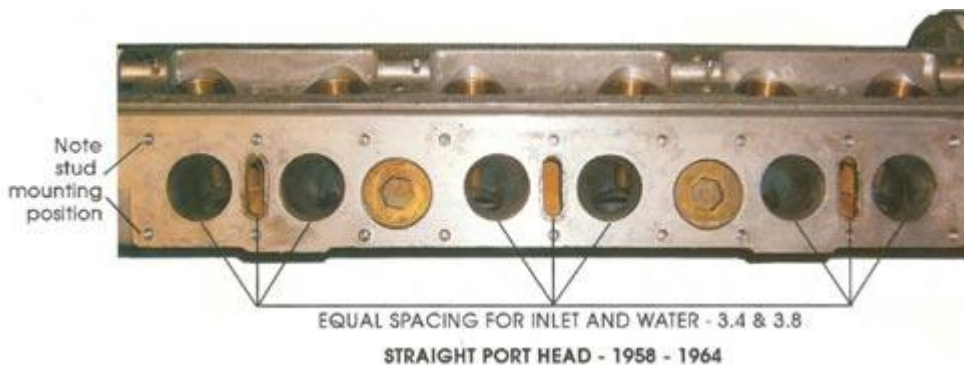
I guess we should start at 1948 and the launch of the XK120 with a straight-six, double overhead camshaft design, fed by two 1 ¾ in (44.5mm) SU carburettors on a one-piece alloy inlet manifold. We can call this an 'A-type' head: it's not its official Jaguar designation, but this is often its affectionate name, given in later years. This basic design of inlet ports and layout stayed on throughout XK120 and 140 production, and I know you are going to say, "what about the 'C-type' heads we all know and love?" This was no more than a direct development from the 120 cylinder head; bigger exhaust valves, some opening and polishing of the ports to help flow and a nice letter 'C' cast in the top to help quick identification. But the inlet manifold from an XK120 or 140 swaps from one to the other without any modification, showing that the water and inlet ports remain the same. Even a production 'D-type' head is merely a C-type head with increased inlet valve size and a change of camshafts, not a new special one-off casting, just a development and improvement from the last production head.

So, "what happened to 'B-type'?" I hear you ask. Well, today this is the term given to all non-straight port heads, whether it be XK120, 140, Mk VII, VIII, IX, Mk 1 or XK150. All these versions are interchangeable with a two-carb set-up, the inlet manifold and carbs will bolt from an XK150 to an XK120 and vice-versa if necessary, the stud positions and inlet ports all match up to each other, as do the combustion chambers, head mounting studs and gaskets.

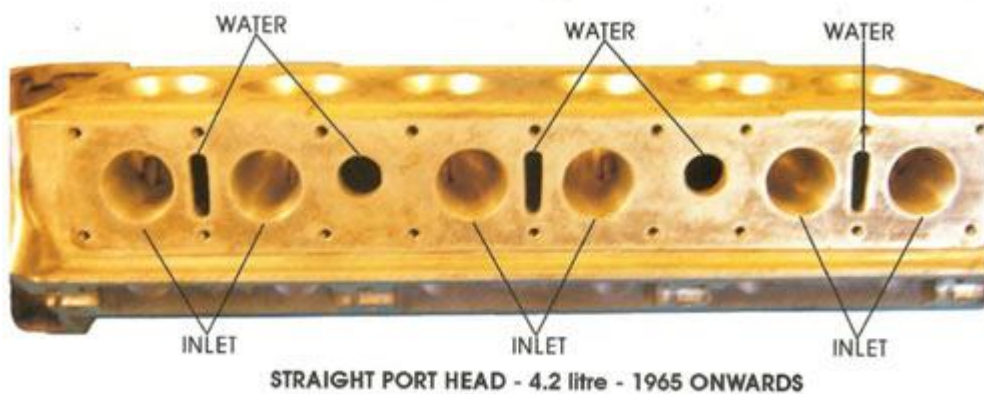
So, if you hear the term 'B-type head', it is a quick reference to the interchangeability of the inlet manifolds, not necessarily to all the other small differences.



In 1958 the cylinder head took another re-design for the fitting of three 2 in (50mm) SU carburettors, to increase power to a possible 250bhp. This first appeared on a production 150 'S' of 3.4 litres in 1959. The 'S' now denoted this significant change of specification, although the standard two-carb version remained as an option. This type of cylinder head we call the 'Straight Port'. This is where, along with other smaller changes, you cannot interchange the inlet manifold to the B-type style: the water passageways and stud mounting positions do not line up. By definition, the inlet ports are straighter on their approach to the valves. I hope the pictures clarify what I am trying to say.



Strangely, the straight port head and non-straight port head carried on together in production for many years until the last 3.8 engine used in a 1967 S-type saloon. And, for basic information, ALL 4.2 litre engines from the first to the last, are also a straight port configuration. Possibly the most amazing fact is that, with two small water holes plugged up at the very rear of the head, a 1986 XJ6 4.2 cylinder head will fit on to a 1949 XK120 block and work! I wonder if that is a unique Jaguar fact, or could any other car manufacturer claim the same? The reason this all comes about in the first place is the often asked question about fitting three carburettors to a car that had only two originally fitted. Jaguar did experimental manifolds to fit to the B type head for three 1 in SUs, but this never made it into production. There have been one or two aftermarket manifolds for the three SU conversion and the best-known was done in the early '60s by one of the best semi-privateer racers, Warren Pearce. He developed and cast in alloy his own version for his very successful Mk 1 and Mk 2 race cars. We have re-made a new version of this style of manifold, which is available today.



So, a basic rule to work by is a 3.4 or 3.8-litre car with three 2 in SUs will be a straight port, as are all 4.2-litre (with two or three SUs), while all 3.4 and 3.8-litre cars with twin SUs will be of the B-type, non straight port style. There is always an exception to the rule, that being the last Mk 2 variants in 1967/68, known as the 240 and 340: these Mk2s had straight port heads with two SU carbs not three. Then there is of course the infamous 'wide-angle head', used on works racing engines in the later '50s and early '60s - but that is a whole other story!

## FENDER BROAD

It has been a very busy summer and autumn at Fender-Broad with several cars finding enthusiastic new owners. Demand is still very high for 'the right cars', which typically vary from humble Triumph TRs up to historic XKs. Quality is the key for happy buyers and sellers too.



Neil Fender and I are hoping to do a lot more competition work next year. The Mille Miglia is in May of next year, the Classic Le Mans takes place in early July and the Silverstone Classic is at the end of July. These are all on our 'to do' list and we are planning to have a full race XK120 and TR2 prepared for next spring ready for these.

We now have a more dynamic web site [www.fenderbroad.com](http://www.fenderbroad.com) so please have a look and find out what our current line-up looks like – you're sure to be impressed. We really do enjoy finding and selling good cars to very nice people. Please drop us a line or give us a call if you wish to discuss an interesting deal.

**Broad and Fender Classic Cars Limited, 8 Beaufort West, London Road, Bath BA16 QB.  
Telephone 07794 477785.**

## IN THE WORKSHOP



The workshop is extremely busy at the moment with a number of extensive projects underway. Not least is an extremely rare left-hand drive XK140 Drophead Coupé from Morocco. This is a super original car, which is having a total mechanical and electrical rebuild whilst not over-restoring the paint or interior.

On May 28th the start flag drops on the 2013 Peking – Paris. With more than 7500 miles (12,250 kms) and 33 days of driving over some of the toughest terrain in the world ahead, this is arguably the toughest event for any car. We have a daunting project to build an XK120 roadster to tackle this enormous challenge. We certainly have our hands and brains full on this one!



As well as these two major projects, we have several road and competition engines to build for customers in France, Belgium, Portugal and the UK.

If that was not enough there are two Broadspout XK120s and another one on the way, so all staff holidays are cancelled for the foreseeable future!