Fitting an upgraded heater to an XK 120 and Mk 2: part 1

Cursed by ineffective heating, we discover how to bring XK 120 and Mk 2 owners in from the cold this winter with a Clayton heater upgrade…

What an emotive subject Jaguar’s heaters are. Unfortunately, because the performance of the Mk 2 heater is generally poor, most other models’ heaters are derided too, but many are good! I’ve never had any complaints about E-type heaters; even in the perfect world this flap opens one way to let cool air pass, airming through the open bulkhead flap. Then, when operated to close off the direction of the cold air, the new intake of air flows over the heater matrix, the incoming blast being warmed and sent into the car. Simple! What actually happens is the sponge seal on the flap deteriorates so that when it is closed, cold air still blasts past the flap and arrives ahead of the now decidedly lukewarm air. The solution is a compromise as most are. The cold/warm air flap is sealed closed so that when any air enters the heater box it will be forced over the matrix and can’t help but get warmed. If the heater function is not required then the bulkhead flap should be closed and the temperature setting put to cold. This in effect closes the water valve on the side of the heater, stopping the hot water supply flowing through the matrix. But the heater cannot rely on forced air alone, it needs mechanical assistance – a heater motor. The original is a bit on the lethargic side so Clayton provides a faster motor along with a bigger fan. The new heater motor has three speeds. For switching a three position (plus off) switch can be used. The diagram on the motor shows the codes. Should the original thermostat be retained then use just the orange wire, hottest. This motor is negative earth. Always use a new thermostat switch as the older type invariably burn out. Fit the wires before offering up the heater in place, it is easier to connect with the fan this way.

A final nut and bolt holds the water valve bracket. Note: As there will be insufficient room to replace these fasteners on reassembly it will be necessary to fix a nut beneath the hole. Ideally it should be tack-weld or brazed in place. An alternative is to use JB Weld to ‘glue’ the nut in place. As it takes 24 hours to set up we suggest ‘gluing’ it. Otherwise, you’ll need to replace the hose when you fit the heater. Take care, as coolant is likely to spill.

The coolant can now be replenished and the system checked for leaks.

The 1952 original has seen better days and now remains as a trophy…of sorts!

W
Mk 2 Removing the heater

1. It is easier to remove the air cleaner assembly before starting on the heater. Then release the control cable on the water valve and ease out of the clamp.

2. Ease the control wire away from the heater flap.

3. Pull the wires out of the snap connector from the loom to the heater motor.

4. Slacken the clips securing the two hoses to the pipes and ease the hoses off – damage is likely.

5. Impact all hoses and pipes. All of the rigid pipes can be replaced in either stainless steel or aluminium – both are available from the specialists.

6. The scrap heater valve was persuaded to depart before the joint gland was retrieved. Amazingly these can be mostly reused.

7. Remove the heater unit from the car.

8. Thoroughly clean the threads with a wire brush and then soak in freeing oil before attempting to undo the motor retaining screws. Then, with a screwdriver on the inside and a 2BA spanner the other, release the three retaining screws and withdraw the motor. This is being replaced.

9. The casing screws rarely give trouble and even these gave up the struggle and were soon removed.

10. Lift out the heater matrix. Note the foam used to cushion the ends. A replacement matrix comes in the kit.

11. The inside looks a mess. Clayton has the casings blasted and painted.

12. Back to that broken stud. Using a welding torch the base is heated until cherry red. If you do not have welding gear, have a word with your local garage or specialist for help.

13. Grips are used to clench on the stud as it should now release with ease. Take care as this area will be glowing hot, even if the cherry red colour has dissipated somewhat.

14. The threads are simply cleaned up by running a 2BA tap down the length.

Contacts
Clayton Heaters
Tel: 02476 691969, Website: www.claytoncc.co.uk

Parts prices (inc VAT)

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<tr>
<th>XK 120 Heaters</th>
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<tr>
<td>Replacement circular</td>
<td>£260.00</td>
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<tr>
<td>Modern replacement</td>
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<td>Refurbish original circular element</td>
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<td>Heater motor</td>
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Next month:
Finishing off the Mk 2 heater and looking at the E-type