



Shorrock Supercharger C75B Installation

Fitting Instructions for Austin Healey Sprite

Introduction.

The design of the supercharger set for the 948, 1098 or 1275 BMC engine is such that the work may be confidently carried out by any competent garage mechanic or owner driver, and necessitates no modification to the engine or chassis. Fitting is simplified by reading through these instructions before starting work.

The supercharger is mounted on the manifold side of the engine with the ports facing upwards towards, and is driven by twin "V" pulley belt from the front end of the crankshaft.

During the installation care should be taken to retain all nuts and washer removed and to avoid damaging any packing as some of these are used again with the supercharger set.

Preliminary Instructions.

- Drain cooling system and disconnect battery.
- Disconnect carburettor controls, petrol pipe and vacuum ignition control pipe. Remove induction manifold and carburettors complete. Remove radiator, and slacken dynamo belt and remove from crankshaft pulley and fan.

Crankshaft Pulley

You must slacken off all engine-mounting bolts to allow the front of the engine to be raised some 3" to allow access to remove the engine crankshaft pulley, and fit the new 3 groove crankshaft pulley and tighten the securing bolt. Then reinstate the engine mountings.

Fitting Front Plate.

Remove the two bolts from the timing cover, one located at its highest point and the other one adjacent at approximately 2 O'clock.

Front plate, with alloy distance piece should now be fitted using 2 x 2 1/4" UNF bolts. Screw into the existing tapped holes and protrude to the rear of the engine front plate where they are finally locked off by using two nuts and spring washers.

Note: At this stage both fan and supercharger drive belts should slip over the crankshaft pulley. Check the fan belt is in good condition.

Fitting Supercharger

The supercharger can now be positioned. Locate it by the new cast induction manifold, which should be already bolted to the supercharger, to the cylinder head. If care is taken the manifold and supercharger can be fitted as one.

Once the supercharger is in position all nuts, bolts and jubilee clips may now be finally tightened including the locking nuts on the front plate.



Fitting Carburettor and Controls

Fit carburettor to supercharger inlet pipe and secure using gasket and bolts. Connect fuel supply line next. Fit copper or steel braided pipe to carburettor and connect the other end to flexible pipe removed from original carburettor. Fit choke control cable to carburettor, and then connect the throttle cable to the carburettor by locating the outer cable into the location boss fitted to the cable anchor bracket on the flange of the carburettor. By threading the inner cable through this boss and then fastening it to the throttle lever arm. Finally check that the throttle is opening fully.

A separate leaflet is enclosed within this booklet explaining the carburettor set-up and jetting.

Throttle Return Spring

Fit one end to the throttle return spring to the throttle cable anchor bracket and the other end to the top lever arm fitted to the carburettor butterfly spindle. This should then be adjusted to give sufficient tension to fully return the butterfly adjustment, screw onto its stop.

Fan

Refit the fan using the aluminium distance piece to bring the fan clear of the supercharger drive belts. Use 4 longer 7/16" UNF bolts.

Radiator

Replace the radiator and you may have to re-route the bottom hose to miss the drive belts. Also it can happen where you may have to remove some the cowling near the drive belts.

Oil Supply to Supercharger

Remove banjo bolt connecting filter pipe to engine and replace with tapped banjo bolt with oil union. (Or fit to oil gauge take off point) With 24" petroflex lay an oil supply to the lubrication connection at rear of supercharger passing round rear of engine to the banjo bolt this should then be secured.

Ignition Setting and Modification to Distributor

It is necessary to limit the advance on most supercharged engines and below is described the method of carrying this out. *For full details see notes "Ignition Setting Modification to Distributor" within this booklet.*

While it is easier to remove the distributor to carry out this work it can be carried out with the unit in position which can save time.

Disconnect automatic advance tube, remove HT cap, rotor and contact base plate. A peg fitted to the automatic base controls the limit of the weights. This peg also acts as anchor point for a spring. Remove this spring and fit a 1/4" bush to the peg then replace the spring making sure that the spring sits in the notch in the peg. Assemble the contact base check that the points have a gap of .015". Set the ignition advance Cooper S 12° standard Mini 8° - 10° static.



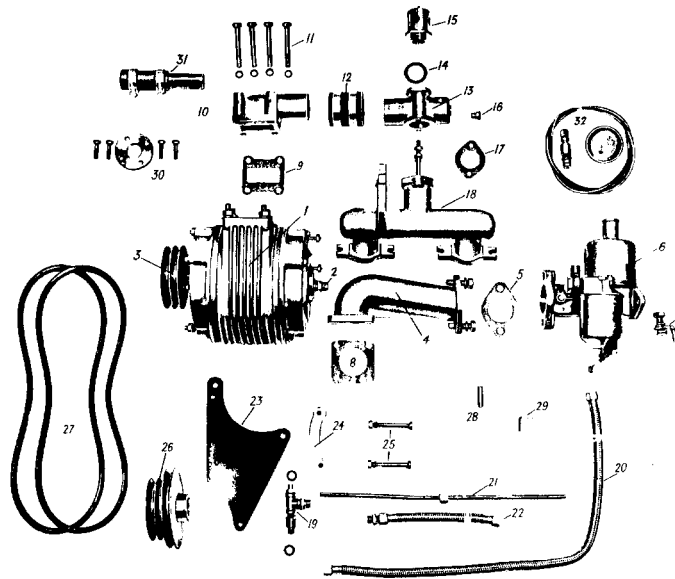
Servicing Instructions

Introduction:- The Shorrock Supercharger is a precision mechanism, which is fully tested of the years. Like any other machine however, it requires running in and should be driven for the first 250 miles. During this period the maximum road speed in top and third gears should not exceed 45 m.p.h. and 25m.p.h. respectively or 3500 rpm maximum. Properly treated it will give many thousand of trouble free miles.

Lubrication

It is essential that the engine oil be kept clean and free from sludge. The supercharger has fitted a "B" pin in its lubricator (as new) this should be satisfactory for the initial running and quite likely permanently. As a guide, there should be a slight amount of smoke from the exhaust on starting up from cold, which should clear after a few minutes running. Should, however, signs of pronounced over oiling arise (for instance clouds of exhaust smoke) then the larger one type "A" should replace the lubricator pin type "B". After every 5,000 miles the lubricator pin should be removed from the supercharger and the pin wiped with a soft rag. On no account should abrasives be used. To remove and replace the lubricator pin, proceed as follows.

Models with external lubricator body:- Unscrew the plug at the end of the lubricator, when the plug, spring and pin will come out together. To re-assemble, assemble pin, spring and plug together, then insert spring first and screw plug down firmly.



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| 1. C. 75 B Supercharger. | 17. Relief Valve Pipe Gasket. |
| 2. Lubricator. | 18. Induction Manifold. |
| 3. Supercharger Pulley. | 19. "T" Piece complete with Union and Washers. |
| 4. Carburettor Pipe (Shorter Pipe for Minor 1000 and A/40) | 20. Oil Supply Pipe 24" long. |
| 5. Carburettor Gasket. | 21. Fuel pipe with Nut and Olives. |
| 6. 1½ S.U. Carburettor Type H4 32 M.M. Solex for A/35. | 22. Flexible Pipe with Union (Carburettor Connection not supplied for Minor 1000). |
| 7. Outer Cable Stop Bracket. | 23. Front Plate. |
| 8. Inlet Port Gasket. | 24. Front Plate Distance Piece. |
| 9. Outlet Port Gasket. | 25. UNF Bolts with Nuts and Washers ¼" x 24" |
| 10. Outlet Pipe. | 26. Crankshaft Pulley. |
| 11. Set Bolt and Washer 5/16" B.S.F. | 27. Belts. |
| 12. Rubber Hose and Clips. | 28. Spare Metering Pin and Sachet. |
| 13. Relief Valve Pipe. | 29. Throttle Return Spring Bracket. |
| 14. Relief Valve Gasket. | 30. Fan Distance Piece and Set Bolts. |
| 15. Relief Valve. | 31. Bottom Water Pipe Extension with Hose and Clip (2 Bends and Hose Supplied for Minor 1000). |
| 16. Brass Plug (Boost Gauge Tapping). | 32. Boost Gauge complete with Nylon Tube and Pipe Connections (OPTIONAL). |

WHEN ORDERING SPARES PLEASE QUOTE REFERENCE NUMBER
AND DESCRIPTION.

**Installation drawing and photo are available from British Classic Sports Cars
at a cost of £ 8.50 a set**

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