

OIL COOLERS

In the past, fitting an oil cooler was mandatory once an engine had been even slightly uprated. The Cooper 'S' had a 13 row oil cooler fitted as standard. The main cause for this was the quality of Motor Oils available at that time. If the oil temperatures exceeded a specific point, then engine failure was almost guaranteed.

Modern motors oils are generally of a much higher quality, especially the recognized 'names' and have far superior high temperature tolerances than those of 10 or 15 years ago. Fully synthetic oils have an extremely high temperature tolerance. Use of any of these oils makes an oil cooler less of a necessity where engine outputs do not exceed around 80 horse power. It is as bad to run the oil temperature too cool as it is to let it get too hot. The ideal operating range is 200°F to 230°F (sump temperature). At these temperatures the oil is working efficiently to produce best power, economy and release of combustion by-products. If the oil is too cool, these by-products are absorbed into the oil requiring frequent changes to avoid bearing and bore damage. It is worth noting that keeping the oil at the correct temperature helps cool the engine generally. High oil temperatures will create higher water temperatures. Various sizes of oil coolers and fitting kits including pipes are available.

To help control oil temperature there is a thermostat available that fits into the

engine cooler pipes, it operates at 74°C (165°F). This can not be used with the steel braided pipe set. An oil temperature gauge adapter is also available that fits into one of the cooler pipes, not compatible with the steel braided pipes.

21A1780

½" BSP screw-on adapter for engine block.

AHA6423

½" BSP screw-on adapter for filter head.

MOC3

Push on adapter set.

C-ARH221

13 Row oil cooler 1/2" BSP fittings.

C-ARO9809

16 Row oil cooler 1/2" BSP fittings.

C-ARH223

19 Row oil cooler 1/2" BSP fittings.

MOC1013

Mini rubber oil cooler pipe and fitting kit.

MOC10012

Clubman steel braided pipe kit.

C-AHT4

Mini steel braided pipe kit.

C-AHT9

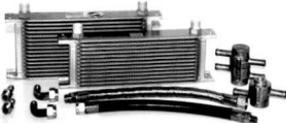
Braided Oil Pressure gauge line, long enough to fit remote gauge locations.

MOCOT1

Thermostat, fits into cooler lines

MOCOT2

Oil temp sender housing, fits into cooler line.



INLET-MANIFOLDS



Following the enormous success of our SU inlet manifolds, further development has recently encompassed a detailed look at the manifolds available for side draught carbs.

The steel inlet manifolds available have long been acclaimed the very best, outperforming all the alloy types by far. Unfortunately this includes the price!

After flow-testing a number of randomly picked steel manifolds, the results showed that as a rule they did not meet their expectations and varied - considerably in some cases - from one port to the other on the same manifolds. Despite this they were still superior to the other manifolds available.

Having set a base-line of data we have designed an alloy manifold that out-flows the steel ones, is extremely consistent port to port, and greatly reduces port-biasing of the mixture. The results were as follows:-

	Steel	Mini Spares
3.75"	116.2	116.8
6.00"	116.6	117.4

Tested by Mike Parry at Race Techniques at 25" pressure drop. Bare head used flowed 124CFM.

The manifolds tested were all unsettled, in fact the alloy ones were straight out of the casting box. Mike tied up very slightly the short manifold to see what happened, and the flow went up to 117.2CFM. That is another benefit of the alloy manifold, there is scope for modifications to increase flow even further. We expect the flow figures to be higher on the finish machined manifolds.

The manifolds come complete with rose jointed linkage mounted directly to the manifold to eliminate flexing.

CAST MANIFOLDS:

C-AHT772

3.75" Long 40/45/48 DCOE/DHLA.

C-AHT773

5.00" Long 40/45/48 DCOE/DHLA.

C-AHT774

6.00" Long 40/45/48 DCOE/DHLA.

Manifold Tubular Steel manifolds:

C-AHT775

Split Weber manifolds, 3 3/4" long, up-swept.

C-AHT776

45 DCOE/DHLA, 5" long.

C-AHT776A

45 DCOE/DHLA, 7" long.

C-AHT777

45 DCOE/DHLA, 3-1/2" long.

C-AHT778

48 DCOE/DHLA, 3-1/2" long.

C-AHT779

48 DCOE/DHLA, 5" long.

C-AHT780

48 DCOE/DHLA, 7" long.

C-AEG490

HS4/6 twin SU manifold. Narrow balance pipe.



INLET- MANIFOLDS CONT.



The twin SU manifolds have been carefully produced to minimize cross-port-flow interference caused by the balance tube, and have good radiuses in all the right places. Further blending can be carried out if required, but leave a ground finish to promote, fuel atomization. DO NOT POLISH!

C-AEG488

Twin H2/HS2/ H4 Manifold.

C-AEG489

Twin HS4/ HS6 Manifold.

DOWNPIPES 1990-ON



Mini Spares has produced a range of cast alloy manifolds for the many SU applications covering the A-Series. The single SU manifolds are developed to give maximum airflow and gas speed yet fit all engines even if the standard air cleaner set up is used -without requiring massive bulkhead alterations and speedo cable re-routing. The as-cast finish provides maximum fuel atomization.

These downpipes fit original cast iron exhaust manifolds 1990-on allowing you fit an RC-40 exhaust system.

C-AHT770

Takes 1 1/2" and 1 3/4" carbs, HS or HIF type. Medium sized port runners suit all small bore engines irrespective of state of tune, and large bore engines up to fast road spec (dependent on head inlet port size).

C-AHT771

Takes 1 1/2" and 1 3/4" carbs, HS or HIF type. Really designed for 1 3/4". It has large port runners for use on extensively modified heads on big bore engines (1380cc and over).

Both have water heating facility (1/2" tube).

12G1405 Servo adapter.

C-AEG367

Fits New Cooper fitted with HIF6 carburetor, twin outlet cast exhaust. Use when eliminating catalyst.

C-AEG370

Same as above, but has necessary fitting for retaining catalyst.

C-AEG372

Downpipe for fuel injected cars to fit RC-40. Flange fitting.

C-AEG375

Intermediate pipe to be used in conjunction with C-AEG375 to retain catalyst.

EXHAUST HEADERS

Ease of fitting, high production quality combined with maximum flow for power make the MANIFLOW exhaust manifolds unbeatable value.

C-STR816

Cooper freeflow. Extremely good all round road manifold. Tends to be quieter than LCB, and is easier to seal.



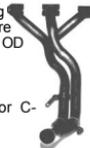
C-STR817

Small bore LCB, ideal for 850/ 998/1098, 1 3/8" ID / 1 1/2" OD tail pipe.



C-AEG365

Medium bore LCB, excellent all round for almost all road application including well tuned fast road 998's etc. Gives good results on 998 racers. 1 5/8" ID / 1 3/4" OD tail pipe.



C-AHT289

Large bore LCB. For big engines and race big bore applications. 1 7/8" ID / 2" OD tail pipe.



C-AHT197

Replacement Y piece for C-AEG365.

C-AHT198

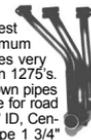
Replacement Y piece for C-AHT289.

BudgetLCB

Less expensive reproduction of the LCB, NOT made by Manifold.

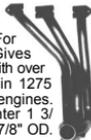
C-STR340

Small bore 3 into 1. Best manifold to use if maximum economy is sought. Gives very good mid range torque on 1275's. Has flat clamps to seal down pipes into collector so is suitable for road use. Outside pipes 1 1/8" ID, Center pipe 1 1/4" ID, Tail pipe 1 3/4" ID / 1 7/8" OD.



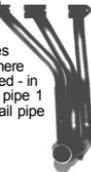
C-STR332

Medium bore 3 into 1. For race application only. Gives best results when cams with over 300° duration are used in 1275 and standard oversized engines. Outside pipe 1 1/4", center 1 3/8", tail pipe 1 3/4" ID / 1 7/8" OD.



C-STR336

Large bore 3 into 1. Really only gives positive results on big bore engines (1380cc plus) especially where long duration cams are used - in excess of 305°. Outside pipe 1 3/8", center pipe 1 1/2", tail pipe 1 7/8" ID / 2" OD.



NOTE:

All road exhaust manifolds come with manifold to gearbox steady bracket. This MUST be fitted, otherwise premature breakage will occur due to engine rock.

