Mini Spares exclusive 9 stud lead free cylinder heads are flow bench proven to be the best available



at these prices when compared to all our competitors. Best over-all air flow for fast road engines from 850 to 1430cc.

## Super Sport Lead Free Heads



Unleaded with manganese bronze guides and race specEN21 4N stainless steel heat treated valves to eradicate wear.

1. a. 35.7mm inlet valve and 29.5 mm exhaust valve suitable for road sports use. For pre 1992 vehicle with bypass hose (21.4cc) .... MSE3

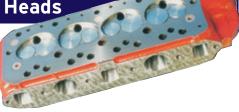
b. as above but replicated on a brand new MPI head casting -

- 2. 35.7mm inlet valve and 29.5mm exhaust valve as per MSE3 but with nominal 24-25cc combustion chamber size for use with 7cc
- 35.7mm inlet valve and 29.5mm exhaust valve suitable for road sports use, but for cars after 1992 or without bypass hose. (21.4cc).....MSE4
- 35.7mm inlet valve and 31mm exhaust valve with bypass hose. (21.4cc).....MSE5
- Twin point injection cars only 35.7mm inlet valve and 29.5mm exhaust valve ......MSE7
- 850/998/1100 modified head with largest valves 30.93mm inlet

Refundable surcharge may apply. Call for details.

## Road Sport Modified Lead Free Heads

Unleaded heads with chromium plate stemmed valves and iron guides but near identical flow characteristics to Super Sport head



- 35.7mm inlet valve and 29.2mm exhaust valve with bypass hose
- 35.7mm inlet and 29.2mm exhaust valve for 1992 on cars without bypass hose..... MSE6
- 35.7mm inlet valve and 29.2mm exhaust and nominal 24-25 cc combustion chamber size for use with 7cc dish 73.5mm pistons
- 10. Twin point injection cars only 35.7mm inlet and 29.2mm

Refundable surcharge may apply. Call for details.

## Standard Reconditioned Heads

- 11. Unleaded heads
  - a. 850/998cc with no temperature transmitter hole.
  - b. 850/998cc with temperature transmitter hole..... GCG1007MS
  - c. 998cc without bypass hose......GCG1007METRO
  - d. 1275cc head with bypass hose ...... GCG1009MS e. 1275cc head without bypass hose and heater outlet.

Refundable surcharge may apply. Call for details.

NOTE: For refundable surcharge, heads must be returned complete and built up, including valves, springs, etc...



12. The original Jim Whitehouse head homologated by Special Tuning Abingdon, now over 40 years old needed revamping using new state of the art casting boxes which encompassed the original cores to produce a high precision casting for road or race.

All heads now have a larger 21cc combustion chamber which facilitates sensible compression ratios on large bore engines. It is supplied fully assembled with springs / top caps and utilizes the original 35.6 inlet and 30.88 exhaust valves and will handle cam lifts up to .500".

Longer push rods are necessary and are available to ensure that the rocker geometry remains correct.

Extensive flow bench testing showed a larger 37.2 inlet valve plus new inlet port cores provides a further substantial increase in performance over the Original Special Tuning cylinder head and can be supplied by Special Order.

Fully assembled High Lift Roller Rocker sets have been manufactured by Minispares and are needed to further increase performance and ensure correct rocker geometry.

A Special exhaust manifold and camshaft with transposed lobes on 2 and 4 cylinders are required. Original "S" Con rods / bolts will need modifying or a special 8 port conrod set is available from MiniMania.

- 13 The Amal four carburettor kit was perhaps the most popular originally, as this compact kit fitted easily under the bonnet profile. This setup are best suited to smaller capacity engines (1000-1293cc) as choke size is restrictive over this. For the

The Weber provides more power potential especially when a long manifold for racing is used, but the carburettor mouths poke out through the bonnet. With the short manifolds the carburettors just squeeze under the standard bonnet profile. However, this second manifold pair are not tremendously efficient due to the offsets and angles used to tailor the fit. Both manifolds are formed and fabricated in steel by Maniflow so produce the optimum flow achievable given the fitting criteria.

- 14. Pair of 90mm long Weber inlet manifolds for power potential
- 15. Pair of 60mm Short Weber inlet manifold which just squeeze
- 16. a. Pushrods for 8 Port Arden head, 1275cc. 0.27" longerC-AEG583 b. As above with alloy center for Sport only . . . . . . C-AEG583EVO

## 8 Port Fuel Injection Kit



17. Bespoke kit designed to compliment the 8 Port head and optimise its full performance potential. The throttle bodies are a direct body to head design that will fit under the standard bonnet of the mini but for those customers who wish to extend the induction system length, parts will be available to do so.

The management system is fully programmable by an approved and competent engine tuner and the software is provided with every kit along with a base engine map which will allow initial start up followed by optimisation on an engine dyno or rolling road.

The comprehensive kit contains an ECU with bespoke loom, throttle bodies and linkage, Crank sensor and mounting kit, air and water temp sensors, air filter and pre drilled base, High pressure fuel pump fuel filter, fuel regulator, throttle potentiometer, coil pack, Magnecor plug leads and 4 Pico injectors.

