



Hand Built Classic Cars from Norfolk, England

A S Motorsport Ltd

The ASM DBR Le Mans



Photo Courtesy of P. Gunnar

Recreating the glory with a Modern Icon

INFORMATION AND SPECIFICATION

www.asmotorsport.co.uk

History of the DBR1 & DBR2

After acquiring Aston Martin in 1947, David Brown set his sights on victory at Le Mans. This goal was to be achieved in 1959 by the team of three DBR1's. The triumphant DBR1/2 was driven by Carroll Shelby and Roy Salvadori. Maurice Trintignant and Paul Frere, in DBR1/4 finished in runner-up spot, and Sir Stirling Moss & Jack Fairman retired in their influential DBR1/3.

The epic battle between Moss and the Ferrari's in the early stages of the race caused the fragile Ferrari's to become overstressed, and one by one, they retired. Thus Moss, in his sacrificial DBR1, cleared the way for Shelby and Salvadori to claim the chequered flag and give success to David Brown and Aston Martin in the 24 hour race.

With other excellent race performances, including victory for the third year running, at Nurburgring and the Goodwood TT, Aston Martin would also secure the overall Sportscar World Title that year.

Having achieved the double of Le Mans and the World Sportscar Championship, David Brown then announced the decision to concentrate their racing involvement in single seater car race series, with Formula One their main focus.

Therefore the total production of DBR1's numbered only five. The DBR2's were prototypes constructed on a pair of backbone chassis that were left from the short lived 1955 Lagonda V12 race car project.

These two cars showed great promise but fell foul of rule changes in 1958 that limited engine capacity to 3000cc. However, they both enjoyed successful racing careers, with victories and podiums in several races including at Silverstone, Goodwood, Oulton Park, Aintree, Spa-Francorchamps and in the USA.

The newly developed straight six engines that they were using would go on to power Astons into the 1970's.

LE MANS

Sweeping triumph for
DAVID BROWN
1st ASTON MARTIN

R. SALVADORI — C. SHELLEY
(Average 172.5 m.p.h. — 2700 miles — New 3-hour records)

2nd ASTON MARTIN

M. TROTTIGNANT — P. FRESE



... also from the same stable the world's finest sports car

ASTON MARTIN DB MARK III SPORTS SALOON

... race-bred from a line of international successes

ASTON MARTIN LAGONDA LIMITED, WINDSOR PARK, WILTON, WINDSOR

(David Brown Company) London Telephone: N08. Facsimile: W11. Telex: 555 774. (London Distribution) Branches of David Brown Limited at 1, Tottenham Court Road, London W1P 0LP



Club ASM in the side alley at Hotel De France, La Chartre-Sur-Le-Loir, during a trip to Le Mans Classic race.

Engine and transmission

The majority of our cars are built using a Jaguar XK engine and gearbox. These are available from 2.4 litre through to 4.2 litre displacements.

The choice of installing an Aston Martin engine is always on offer.

The XK engine is very similar in appearance and design to the original Aston Martin engines. The advantage of using the Jaguar engine is that they, and their spare parts, are more easily sourced, as well as their usability.

These are fitted with different gearbox options to suit the engine specification. Borg Warner, Getrag, Tremec, ZF, Moss and Supra boxes have been fitted.

The Jaguar units are completely overhauled by VSE and are rebuilt to the customer's desired specification. The engine is therefore covered by a limited warranty through VSE. A rolling road tune up session can be arranged to get the best performance from the engine and gearbox combination.

VSE are also able to offer a wide range of upgrades such as triple Weber Carburettors, gas-flowed head or **club sport** engine package.

The engines can also be finished with a choice of cylinder head colours, polished rocker covers, tubular exhaust system in stainless steel and custom air filter plenum chamber.

Please see our page concerning multiport injection for the straight six engine.

Engine Spec

- 3.4 litre Straight Six Jaguar XK Engine.
- Twin SU carburettors.
- Custom Alloy radiator and header tank. Twin Fans.
- Custom Alloy fuel tank with 3 ½ inch Aston filler cap.

Options

- *Jaguar XK 3.8 litre / 4.2 litre Straight Six Engine.*
- **Aston Martin engine.**
- *Multiport injection system -see separate page for details*
- *Triple Weber Carburettors.*
- *Club sport engine package.*
- *Thermostatic Engine Oil Cooler*
- *Gas flowed head.*
- *Custom air filter plenum chamber.*
- *Twin fuel pump system.*
- *Oil Pressure Accumulator for automatic pre-lube on start-up and oil surge protection during high speed cornering and braking.*
- *Choice of cylinder head colours.*
- *Polished rocker covers.*

Transmission Spec

- Moss Gearbox
- Cosworth Limited Slip Differential, up rated drive shafts.
- Hydraulic Clutch

Options

Gearboxes fitted according to engine specification -

- Borg Warner
- ZF
- Getrag
- Tremec
- Supra
- Quaife Differential

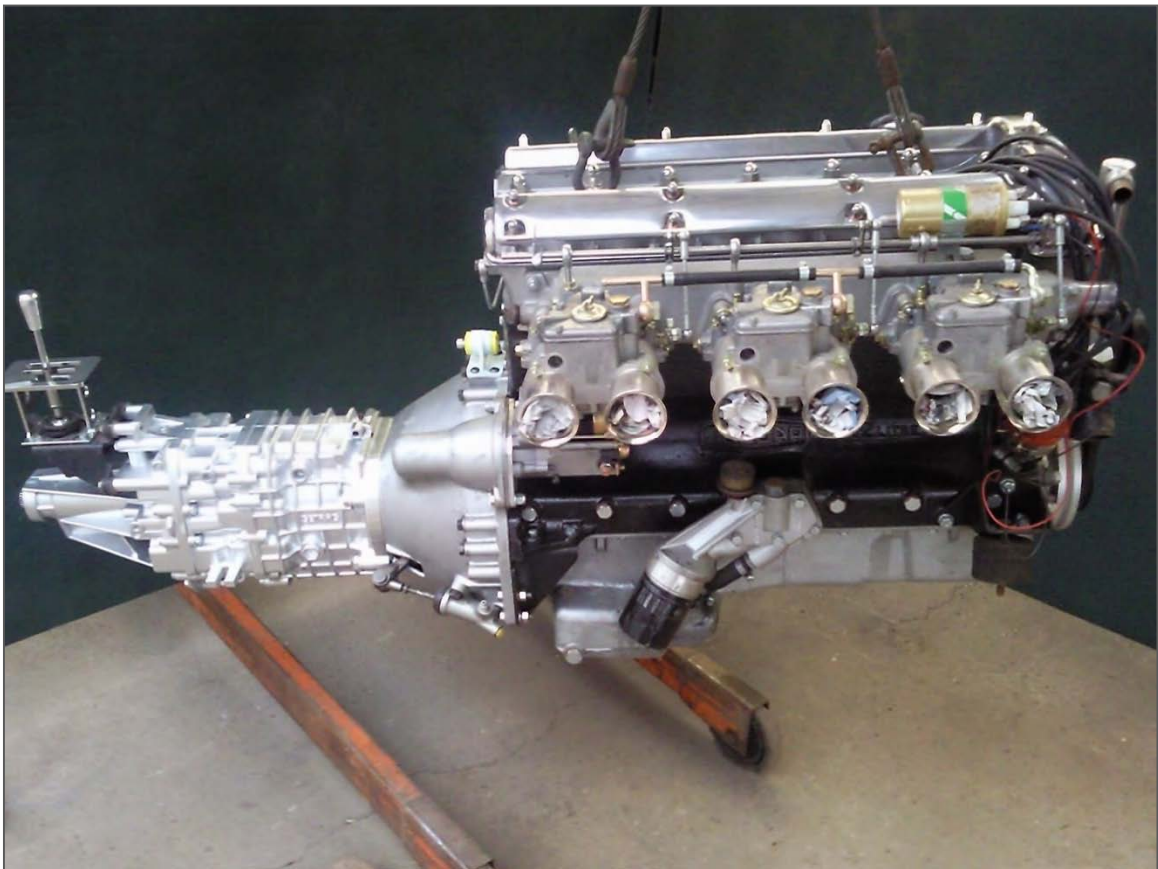


Jaguar XK 3.4l engine with twin SU carbs up-rated to 'fast road' spec.



Multiport Injection System,

Getrag 265 gearbox & 4.2 Jaguar XK engine with triple Weber Carburettors-'club sport' spec



Jaguar XK Multiport injection system.

In partnership with Emerald Control Systems and Mangoletsi Manifolds, ASM can offer a full management system to control fuel injection and ignition for the Jaguar XK engine.

Combined with exhaust catalysts, this system provides unparalleled levels of driveability, torque and power as well as compliance with modern emission standards.

This combination of multiport injection and a Jaguar XK engine gives power, usability, the correct sound, feel and look in one very reliable, 'get in and drive' package. As with the whole of the car, usability and operator enjoyment is paramount!

Building an ASM DBR with this system will qualify the car for a brand new registration number plate. If so desired, this can be replaced by a registration from an earlier age.

- Multiport injection
- Emerald ECU
- Mangoletsi manifold
- ECU controlled ignition system.



Triple Weber DCOE 45's used as throttle bodies for injection system

Chassis

Our chassis shares many features with the original.

ASM has sympathetically and thoughtfully updated some characteristics and with the use of modern fabrication methods produced a safe and strong framework.

The design is a perimeter frame style, fabricated from high quality steel. It is then assembled in our chassis jig and welded using a combination of MIG, TIG and Bronze welding.

There are now over 60 laser cut brackets and 20 machined parts that go into each assembly.

Development of the design has seen many changes since the early cars produced by ASD and ARA Racing. Indeed, over the years since ASM has been involved there has been much appraisal of the workings.

Each chassis has seat, foot-well, pedal and steering locations individually designed to suit your requirements.

Once assembled, the chassis is blast cleaned and powder coated in the original colour. Other colours are available by request.

Chassis Spec

- Custom perimeter frame tubular chassis.
- Shot blasted and powder coated in the original chassis colour.
- Seat, foot-well, pedal and steering locations to individual design.

Options

- *Chassis powder coated in colour of your choice.(No cost option)*





Suspension

We have worked very closely to the design of the cars built in the 1950's, whilst incorporating modern engineering techniques in the construction to produce a safe, reliable car

The front suspension uses an unequal length double wishbone system with a forged steel upright. Four pot alloy brake packages have been designed specifically for the car.

The rear suspension is a similar format to that used on original cars and consists of a De-Dion tube axle that is located by four trailing arms and a lateral Watts Linkage.

Up rated drive shafts feed into cast hub carriers which allow fitment of a variety of disc brake options.

All our suspension components are new, with the exception of the Cosworth Limited Slip Differential unit which is professionally reconditioned.

The suspension components are all fully rose jointed and therefore allow a large range of geometry adjustment to suit different driver and track requirements.

Avo coil-over dampers are fitted as standard.

Each car is built to drive and handle like the 1950's car which it emulates. When fitted with period cross-ply tyres a skilled driver can enjoy a real Le Mans experience.

Suspension Spec

- **Front** - Fully Rose Jointed Suspension with unequal length double wishbones.
- **Rear** - De Dion tube axle with Watts Linkage.
- Avo adjustable dampers front and rear.

Brakes

Brake Spec

- Wilwood Alloy Four Pot Vented Discs at the front.
- Disc brakes at the rear.
- Braided Hoses.
- Non Assisted Twin Circuit brakes.
- Cable run handbrake.

Options

- *Grooved front discs.*
- *Vented rear discs.*

Wheels

Wheel Spec

- 16" Wire Wheels fitted with period Dunlop Road Sport RS5 tyres. (Cross-ply)
- Painted Finish.
- Octagonal 'knock on' spinners.

Options

- *Radial tyres.*
- *Chrome finish.*
- *Two or Three Eared Chromed 'Knock on' Spinners.*

Steering

Steering Spec

- Rack and Pinion Steering with collapsible column.
- Moto-Lita Wood Rim Steering Wheel with removable boss.

Options

- *15 or 16 inch Moto-lita Steering wheel.*

Exhausts

Exhaust Spec

- Tubular exhaust system in stainless steel.
- Exhaust route fully heat shielded.
- Coated with thermal barrier.

Options

- *Headers-*
Polished /Ceramic coated /Wrapped.
- *Race flow Headers*

Interior

Interior Spec

- Smiths Instruments.
- Alloy Panelling to passenger compartment.
- Leather trimmed Seats and Headrest.
- Four point harnesses.
- Machined alloy gear knob.
- Painted GRP transmission tunnel.

Options

- *Half-zip Tonneau cover.*
- *Part trimmed Alloy transmission tunnel.*
- *Laser cut Replica "H" gate gearstick housing, finished in Chrome or stainless steel.*
- *Bespoke weatherproof Le Mans material trim.*
- *Door pockets.*
- *Extra auxiliary instrumentation.*
- *Reproduction Smiths Tachometer*

Body

We offer either an Aluminium or GRP body.

Our standard car comes with a one-piece GRP body shell. Each shell is hand laid by specialists in our production mould and left to cure for several days. Woven Kevlar reinforcement is offered as an option.

Once removed from the mould, the shell is trimmed and trial fitted to the chassis before being sent to the body shop. Many hours of preparation are lavished upon the body before the paint is applied. *Supplied in any colour you like as long as it is Aston Martin racing green!*

The Aluminium cars are produced in England by craftsmen using traditional methods. Each body is hand formed and attached to our chassis by the superlegera method of supporting tube work. Many hours of attention to detail and expertise go into constructing this work of art.

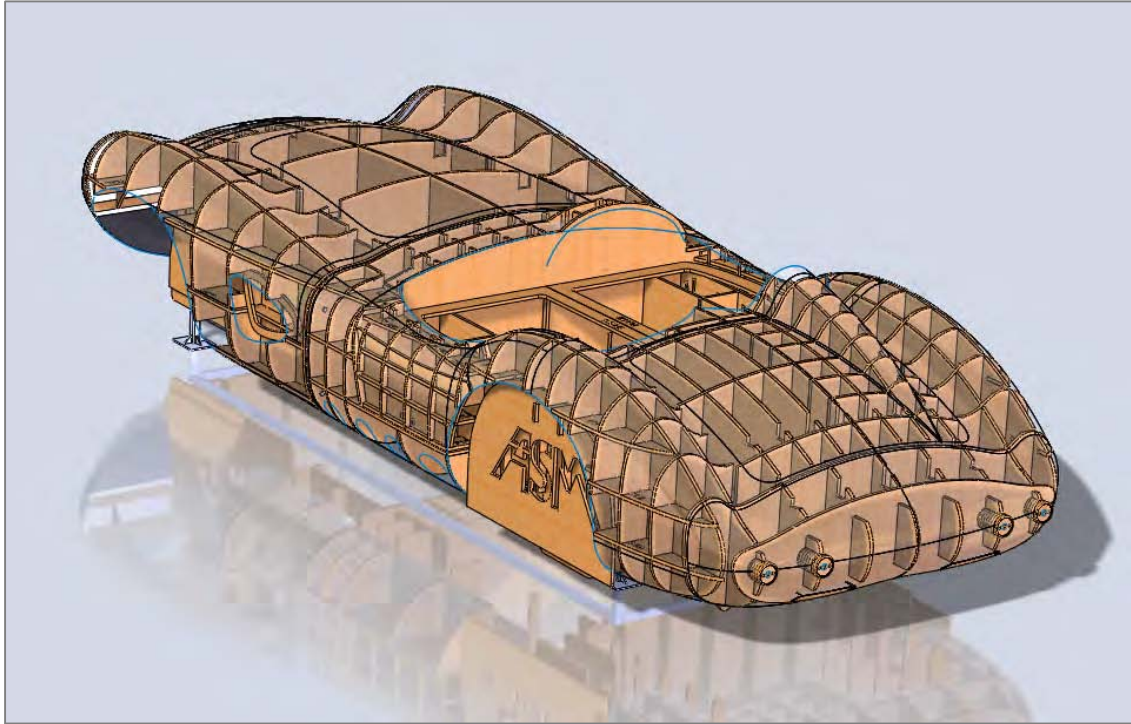
We are able to offer a Left Hand Drive version with an Aluminium body. Please contact us for more details.

We also provide you with the option of including an aluminium bonnet, boot and doors to fit the GRP body shell.

Body finish options include race nose highlight (lip around grille) and racing numbers / roundels.



Aluminium Body



With the support of Computer Aided Design (CAD) a wooden buck has been produced using Computer Numerical Control (CNC) techniques. The results have then been used to fashion a truly authentic aluminium body shape. We have been able to compare the symmetry and general overall silhouette and where needed, we have tweaked and refined the design giving the genuine form of the 1959 World Sports Car Championship winning vehicle.



Body Spec

- Aluminium body/
- Hand Laid GRP body finished in Metallic Aston Racing Green
- Alloy panelled interior, engine bay and boot.
- Plexiglas Windscreen and Side screens.
- Concealed Double Latch Burst-proof catches on Doors, Boot and Bonnet closures.
- Bespoke polished Cast Alloy Bonnet and Boot handles.
- Tubular polished Alloy Grille.
- Painted Side Louvers.

Options

- *Aluminium bonnet, boot and doors fitted to GRP body shell.*
- *Kevlar reinforced composite body.*
- *Race nose highlight (lip around grille).*
- *Racing numbers / roundels.*
- *DBR1 racing body modifications (vents etc).*



General Information

This iconic car is only offered as a finished build. Our mission is to construct cars of quality, not quantity; to attain and maintain the best position in the market, giving maximum resale value of the vehicle. You can be assured of our care and commitment at all stages of build and your future ownership of the DBR.

Registration of the vehicle

The car has passed the VOSA IVA test and is UK registered as an ASM DBR Le Mans, either on an age-related number plate relating to the age of the engine donor vehicle or a brand new number. A MOT is not required for 3 yrs. One years Road Fund Licence is included. Cherished plates can be assigned at first registration. A correctly registered vehicle ensures that future sales, MOTs and any possible accident insurance claims will not fall foul of identity issues.

Production time

An Aluminium bodied car will be a minimum of 10 to 12 months, a GRP bodied car is a minimum of 4 to 6 months, both depending upon specification & position in order book.

Export of Vehicle from UK

The Customer is responsible for ensuring the vehicle will conform to the standard required by their country. All export costs are at the expense of the customer. ASM will assist in whatever way they practically can to ensure the required guidelines are met.

Will it fit in the garage?

Vehicle Dimensions-

Approximate Weight- 975kg to 1000kg

Length- 4.3m / 14'

Width- 1.7m / 5'7"

Height- 1.02m / 3'4"

Full Specification and Terms & Conditions are available, please enquire.

The engineering & construction of our cars takes place on our family-run arable farm in the beautiful Norfolk countryside.

We would be delighted to meet with you and show you more, or contact us for a chat to discuss your thoughts and requirements.

About Andrew, a brief history of the story so far...

Andrew Soar grew up on the Family Farm in Bressingham, South Norfolk, and was involved in the smooth operation of it from an early age. Finding the engineering aspect intriguing and enjoyable, he learnt skills ranging from Blacksmithing with 'Billy the Smithy', to electronics found on GPS harvesters; as well as how to siphon petrol from his father's car to propel an old banger around the stubble fields, but that is another story!

Having completed an engineering apprenticeship and knowing that Agriculture would not provide sufficient income for all the generations involved in the running of the arable farm, Andrew found he liked the challenge of college life, and began lecturing in the Technical Department. He stayed there for ten years, teaching engineering and gaining the skills and experience that would stand him in good stead for the future.

It was while teaching that Andrew met his future wife, but that was not known at this time!

Further diversification ensued, working as a consultant in the Construction and Engineering Sector, specialising in the safety and operation of heavy plant, with a worldwide, multinational company as a prime customer.

In between times though, the mid-nineties brought a brief spell of wanderlust which resulted in more engineering work, but this time in the Great Plains of the USA.

It is probably here that the spark which was kindled, aged 11, with a Morris Minor on a stubble field, grew into the flame and roar of V8 muscle cars. On returning home, the building of kit-cars ensued, starting with a Cobra 427, which went through a series of V8 engines and gearboxes, each an improvement on the next, and various suspension developments.

However, working away from home all the time finally gave way to the wish to be 'at home' on the farm. With a new wife to support, an engineering business was started from the farm, undertaking specialist jobs on other Cobra's.

Cobras have remained a theme, with the 289 shape being the current example, sporting a custom designed chassis and suspension.

A S Motorsport was formed in 2007 to market and build the ASM DBR Le Mans.

Andrew Soar

A S Motorsport Ltd

Poplar Farm, Fersfield Road, Bressingham, Diss, Norfolk, IP22 2AP.

Telephone +44(0)1379 688356 Mobile +44(0)7909531816

Email info@asmotorsport.co.uk

www.asmotorsport.co.uk



Photo courtesy of Simon Finlay