The



from

AK Sportscars



Historic charm with modern engineering

About AK Sportscars

AK Sportscars was formed in the mid 80's by Alan Frew and Ken Freeman who designed and constructed the chassis and body of their first Cobra replica. Over the next 10 years Ken improved the design and was joined by son Jon as production increased to meet an enthusiastic demand. Ken retired in 2009 and Jon then took over at the helm further improving the handling of the AK 427 with the Gen II and now Gen III versions of the chassis. Neil Johnson joined Jon in December 2018 to expand the range. Together, Jon and Neil designed and built the AKSS, a stunning sports car designed to capture the authentic British 1950's style. The AKSS is built in a production facility in Peterborough, England which is shared with its long-established sister sportscar the AK 427 Cobra.

Why an AKSS?

The aim of developing the **AKSS** was not only to produce a beautiful and desirable sports car but also to offer the discerning owner a car that offered a fast yet safe and comfortable ride. Thanks to modern engineering the **AKSS** is an easy car to live with and makes every journey memorable and above all fun! The **AKSS** is hand built to exacting standards in limited numbers and thus will always be the star of the show wherever it is seen. Its rarity will ensure it remains a sound financial opportunity.

Anatomy of an AKSS

The purpose built space frame chassis is based on the proven AK 427 Gen III Super-Lite chassis. With changes to the reinforced and triangulated central tunnel and a new steel bulkhead, it significantly improves the chassis' torsional stiffness, giving superior ride and handling characteristics.



As with the AK 427, reconditioned Jaguar XJ40 running gear is utilised. Braking is provided by a dual circuit, servo assisted system, with vented discs at the front and solid outboard discs at the rear.

Suspension control is optimised by using premium specification Nitron shock absorbers on each corner with adjustable rebound damping and spring platforms.

We select a used example of Brown's Lane finest 4.2 litre straight six engine which is completely overhauled. This includes a full engine strip and clean before rebuilding with refurbished oil and water pumps, new gaskets, bearings, pistons rings and timing chains. The build is further enhanced by replacing the original rope crankshaft seal with a modern lip-seal and the use of a new modern 'spin off' oil filter. All fasteners are either replaced or re-plated and period correct lift hooks are fitted. This is then complemented by a pair of polished D-type cam covers.

To meet the latest emissions requirements the base engine is built up with a modern engine management system. This also brings the benefit of better hot and cold starting, driveability and reliability. However, to maintain the authentic look and sound of the original, we utilise Jenvey Heritage throttle bodies which replicate the look of a set of triple weber carburettors.



Operated via hydraulic clutch, the engine is then linked to modern 5-speed close-ratio transmission. The final drive ratio of 3.54:1 has been selected to optimise the touring versus performance requirements for the vehicle.



Contact us

If you're interested in owning an iconic 1950's sports car or want to learn more about it or just want to talk cars over a coffee, you'll always be welcome at AK. Contact details are below to arrange a visit and a test drive.

The **AKSS** specification in detail

Mechanical

- Purpose built space frame chassis based on the tried and tested AK 427 Cobra. Reinforced central tunnel with extra triangulation and steel bulkhead. Powder coated in customer's choice of colour.
- Reconditioned Jaguar XJ40 running gear with specially commissioned 3.54 differential.
- Dual circuit servo assisted braking system with stainless steel flexible hoses.
- Single pot reconditioned Jaguar floating callipers with vented discs at the front and solid outboard discs at the rear.
- In house fabricated pedal box.
- High specification Nitron dampers front and rear with adjustable rebound.
- Adjustable spring platforms with optimised spring rates.
- New AK pattern power assisted steering rack.
- Custom fabricated stainless steel steering column with twin UJ column extension.

Engine and Gearbox

4.2 Jaguar XK straight six cylinder engine fully reconditioned.



- Polished smooth cam covers with D type engine breather.
- Latest Emerald K6 ECU and software coupled to an ignition coil pack and Jenvey Heritage throttle bodies with integral fuel injectors.
- Hydraulically operated clutch
- Modern 5 speed gearbox with short throw gearchange action and fully balanced propshaft

Cooling System

• 4 core radiator with alloy header tank.



- 16" high volume fan with adjustable capillary fan activating switch.
- Modern black silicone hoses with period appearance throughout.
- Single speed heater to demist vents or heated front screen.

Exhaust system

- Manifold fabricated in 1 ¾" stainless steel tubing.
- Single catalytic converter.
- In house designed 5" stainless steel silencer with heat shield and twin tail pipes.

Wheels and Tyres

• Period Dunlop 1950's wheels with spinners and centre caps.



Body

- Hand laid up GRP gel coat body utilising coremat to stiffen panels without adding a significant weight penalty.
- Steel bulkhead to incorporate foot wells.



- Authentic pattern rivets and screws to body and rear clam.
- Full cockpit tubs integral to body and bolted through chassis.
- Optimised cockpit dimensions to give improved ergonomics.
- Ceramic heat shielding to underside of bonnet.
- Authentic pattern asymmetrical bonnet bulge and alloy louvre panel.

Body exterior fittings

- Laminated windscreen in alloy surround.
- Front paired polished alloy bumpers with 3 piece polished alloy bumpers at the rear, incorporating rear number plate light.



- 2 speed windscreen wipers with inconspicuous low profile washer jets.
- Bonnet and boot catches are a period match with complementary leather bonnet straps.
- Bonnet and boot fitted with stainless steel rope stays.
- 7" headlights with separate sidelights.
- Lucas indictors with side repeaters and Lucas stop / tail lights.
- Front polished stainless steel AKSS badge.
- 3.5" Monza fuel filler cap frenched-in to driver's side rear wing.
- Body painted by AK body sprayers in the colour of your choice.

Interior

- Seats, centre panel, door panels, inner sills and tunnel cover in contrasting finest quality Scottish hide to customer's specification.
- Dash top, gear lever and handbrake gaiters in black leather.
- High quality black carpet.
- 4 point Willans seat belts.
- Alloy gear lever and handbrake knobs with chrome gear lever ring.
- Period Motolita wooden steering wheel.



- Stainless demister vents.
- Interior scuttle mirror.
- Driver and passenger mirrors.
- Double catch safety door locks.



- Smiths Classic range of period instruments consisting of speedometer, tachometer, fuel gauge, water temperature gauge, oil pressure gauge and voltmeter.
- Period toggle switches for lights, dip / main beam, washers and heater blower. Illuminated toggle switches for hazard warning lights and rear fog light. Period ignition and indicator switches and starter button.

The team having fun at Goodwood Revival 2019



Jon Freeman, Director



Wendi Freeman, COO



Neil Johnson, Director



Customer trying out her hat for size!

Contact Jon, Wendi or Neil at AK Sportscars to arrange a visit, talk sportscars or just chat.

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